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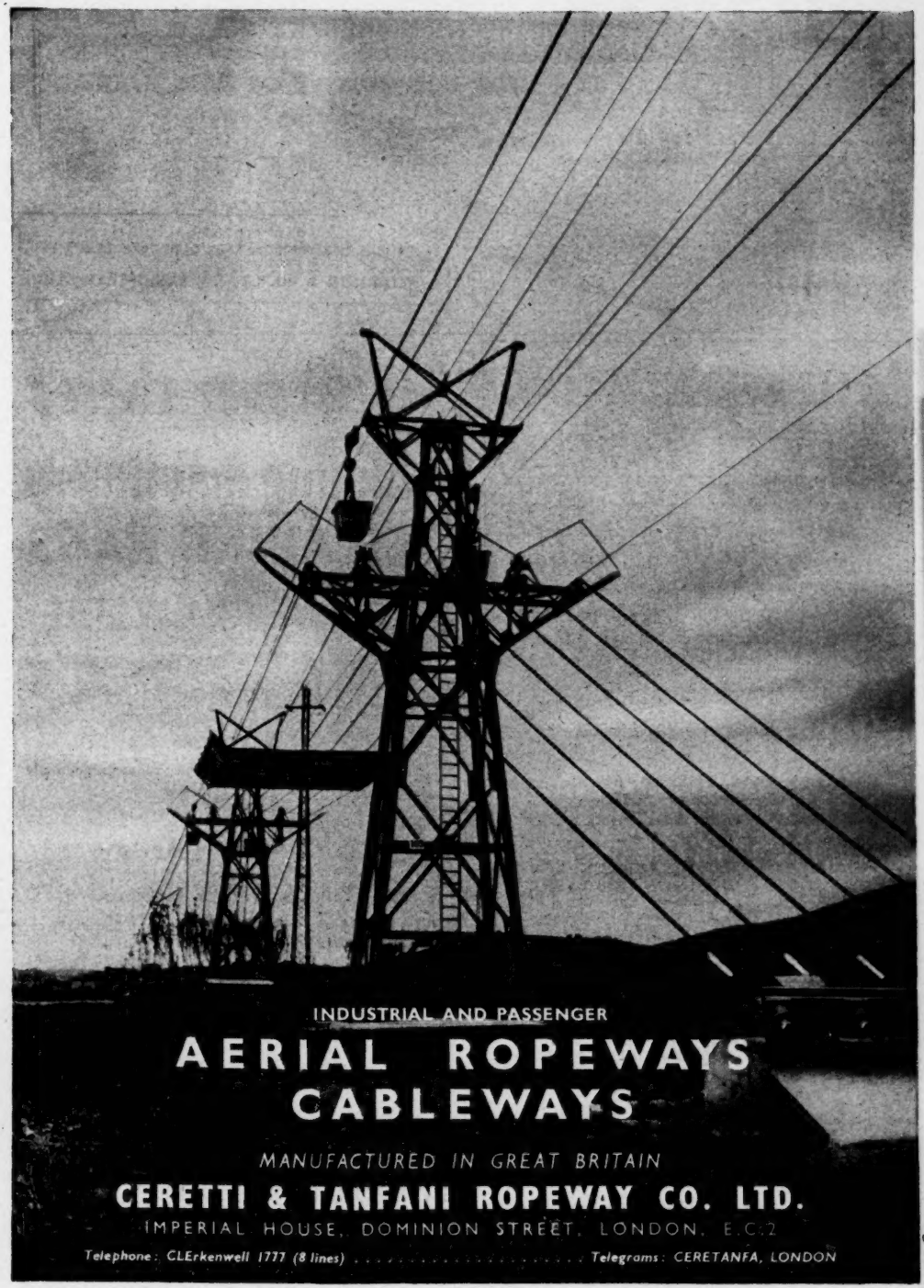
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NOTES AND COMMENTS

B.O.M.A. on Taxation of Overseas Mines

The clearest way of putting the British overseas mining industry into a position from which it can successfully compete with local enterprises would be for the United Kingdom Revenue to forgo taxes on profits ploughed back overseas.

This is one of the most important submissions made by the British Overseas Mining Association in its memorandum to the Royal Commission on Taxation. Profits, the memorandum states, should be taxed only to the extent that they are remitted to the United Kingdom. In most territories, it is pointed out, British mining companies compete with locally owned undertakings and, in many territories, with American companies. Their liability to U.K. profits taxation, even after double tax relief, inevitably handicaps them in that competition since they cannot retain the same margin out of profits as their competitors for maintenance and expansion and for exploration and prospecting. In any event, the fact that this handicap arises from the need to pay U.K. taxes is resented not only by the governments of overseas countries but also by public opinion there, as an excessive withdrawal of profits from the territory. Indeed it is viewed "as a factor diminishing the effectiveness of the British enterprise in its local setting, and as lessening the amount which the government of the territory can legitimately exact as the price of operating therein."

The B.O.M.A. also urges that percentage depletion allowances should be granted against mining profits, as to merely amortize the original cost of the mine over its working life is not sufficient to ensure the stability of the mining industry. In this connection, B.O.M.A. would favour a tax free allowance similar to percentage depletion deductions allowed in the United States, Canada, Australia and Southern Rhodesia.

The international aspect of this argument is also closely examined. American and Canadian companies, in particular, operate with the aid of large depletion funds built up out of tax-exempt current revenues, which they are currently using to explore and prospect in competition with British companies. Thus, it is obvious that British-controlled companies cannot compete on equal terms with such companies "which are aided and fortified by tax codes deliberately devised to set aside as tax-exempt part of the profits of existing mining enterprises in order to encourage and stimulate the opening up of new prospects." Unless this situation is recognized, the memorandum declares, this country will be faced with the fact that all the new and prosperous mines will be controlled from outside the United Kingdom.

Another important submission made by the Association is that the capital element in shaft sinking should be limited to the original shafts and the cost of subsequent shafts should be allowed as a revenue cost. Another is the submission that the methods of valuing stocks should be less rigid and that allowances on the cost of acquiring properties should not be limited to the price paid by the first U.K. purchaser.

It is fitting, however, that the Association reserved its most telling criticism for the current restrictions placed upon company emigration. The memorandum declares that the attempt to make the pattern of control inflexible and subject to veto by the U.K. treasury has created an atmosphere of hostility and resentment abroad which may have unfavourable repercussions far outweighing the narrow fiscal advantage which the prohibitions seek to preserve. Finally, it is stated that the introduction of this right of prohibition was a singularly ungracious gesture towards those companies which had remained in the United Kingdom from choice when the alternative of transferring control abroad was open to them.

Ring Fence Still Intact

The Treasury's refusal to approve the application from Johannesburg Consolidated Investment to transfer its seat of management and control to South Africa must be regarded as something other than just one more instance of the British Government's determination to maintain its ring fence around those overseas mining companies which are still domiciled in these islands. "Johnnies" application over which the treasury had been lucubrating for more than six months is something of a test case and the decision announced this week will no doubt be taken as a precedent to be applied to all future applications.

It cannot be said that "Johnnies" request to be allowed to emigrate was made before other avenues of escape from the dead hand of the Treasury had been explored. Last year the company in conjunction with two others contested the validity of a ruling by the special tax commissioners that as these companies were "resident" in Britain they were liable to taxation on their undistributed profits. The companies held that "residence" ought to be determined by the volume of business carried on in the country. The court of appeal disagreed, although leave was granted to appeal to the House of Lords.

Meanwhile the Treasury's rejection of "Johnnies" application has for the moment closed the remaining avenue of escape. It is difficult to believe, however, that the last has been heard of this matter. A pointer to the future course of the struggle to freedom, not only by "Johnnies" but by all similarly placed companies, is to be found in the comment in B.O.M.A.'s memorandum to the Royal Commission on Taxation that the necessity for overseas mining companies to pay taxes to the British Government "is resented by the governments of overseas countries and by public opinion there . . ." and "is viewed in almost as adverse a light as the excessive withdrawal of profits from the territory."

This is not to suggest that the South African Government will necessarily raise the "Johnnies" case with the British Government but at no greater distance from Johannesburg than Lusaka we have the spectacle of active local political pressure being brought to bear on the British Government to allow the emigration of the Selection Trust group copper mining companies.

Although no Treasury decision has been given on the application made by these companies, a foretaste of what the British Government might expect to counter should they refuse permission can be gathered from a statement recently made by Mr. Roy Welensky, leader of the unofficial members in the Northern Rhodesian Legislative Council, who decided that the British Chancellor should be prepared to agree to the transfer of the large mining companies of the Selection Trust group from London to Northern Rhodesia. In fact, Mr. Welensky went much further than this and was reported as saying, "We are only governed by the Colonial Office to the extent we are prepared to be governed. There are limits beyond which they cannot go." The transfer of the companies, he added, might cost the British taxpayer a good deal of money but he hoped that the Chancellor of the Exchequer would agree to the transfer and save Northern Rhodesia from an embarrassing clash with the British Government.

What Mr. Welensky considers to be an "embarrassing clash" is not known but it can hardly be edifying and when that situation is multiplied several times over the U.K. Treasury will begin to have a rough idea of what it will have to contend with to keep the ring fence intact.

Tin Mining in Malaya Reviewed

At the annual meeting of the F.M.S. Chamber of Mines held in Ipoh at the end of May, the president, Mr. D. T. Waring, said that henceforward they must look for plants falling idle as their reserves were exhausted. Last year, with 83 dredges and 584 gravel pump mines in operation, as compared with 80 dredges and 560 gravel pumps twelve months earlier, there has been a decline of 370 tons in the output. To meet the prospect of a serious drop in production, State governments should be given a share of the federal revenue for tin as an incentive to issue mining leases, and the State governments should cooperate with the industry by affording facilities for consultations so that new areas should be available when security conditions allowed prospecting to be resumed. Most of the new mining areas will be low-grade and would need high capacity equipment and in order to enable mining companies to afford the capital outlay necessary, some adjustments should be made in the export duty on tin. Such a reduction was necessary to allow mining of low grade ground. Income tax and export duty combined meant that the Federal Government took at least 50 per cent of the profits earned by the industry. Moreover, there was a tendency for the States to raise additional revenue for their own requirements by increasing the scale of charges for the renewal of leases. This was likely to have the effect of eliminating marginal areas which might otherwise be worked.

Substantial progress was made last year in the settlement of war damage claims, and about 75 per cent of the awards have now been paid, but as the industry had voluntarily agreed to principles of claims assessment involving adjustment on the figure of actual cost shown in these claims, mining undertakings would still be bearing a large proportion of the damage suffered even when the awards had been 100 per cent paid.

The annual meeting of the Malayan Chamber of Mines, the sister organization representing Malayan mining in Great Britain, was held in London this week. In the main the chairman, Mr. A. G. Glenister, made much the same points as did Mr. Waring at Ipoh. But this review was naturally devoted more particularly to the position of U.K. registered companies which have been placed under ever greater disabilities than companies registered elsewhere, owing to the penal taxation here on distributed profits and the discontinuation of initial allowances on new plant and machinery. He also emphasized a point which is not always borne in mind that the current high rate of export duty on concentrates exported from the Federation was fixed many years ago and since then the high grade ground which then contributed to the bulk of the output has long been exhausted, and if a lower grade ground is to be generally relied upon in future reduction of the tin export duty is essential.

He also, like Mr. Waring, expressed the importance of freeing the tin industry from controls especially in the United States and returning it to freedom of operation. He also again emphasized the necessity which has figured in so many reports since that of Sir Lewis Fermor of the need of an overhaul in Malayan land policy to stimulate to the utmost discovery, prospecting and development of all remaining tin bearing land, as well as of an identical policy by all the States. Differentiation is no doubt a concomitant of the policy of encouraging the individual sultans to assert their independence but it is a new and unfortunate development for the mining industry. In particular Mr. Glenister mentioned that the Perak Government is refusing the renewal of mining leases of ground already mined but needed in connection with future operations. What does not seem recognized in Government circles is that reserves of land and security of tenure for a long period ahead are essential for the future prosperity of the industry and without them outside capital will not be attracted.

Chile's Copper Sales Policy

The "blackout" placed by the Chilean Central Bank on all news regarding its handling of the Chilean copper deals, continues and has contributed to create a confusion among observers, as the local newspapers carry stories based on "unofficial but usually reliable sources" related to these matters. In the face of each story published, the Central Bank has adopted the same attitude: neither to confirm nor to deny.

Thus, at present, the only sources of news available are those in the copper shipping ports, through stories mentioning shipments of national products for abroad, in-

cluding among them copper, as well as other products. The Chilean Government's export policy for copper, as it appears from these sources, has been summarized by Reuters Santiago correspondent.

The Chilean Government's decision to abrogate the U.S. copper agreement had its roots in its failure to place the free disposal quota—20 per cent of the whole output—in the world markets at the prices expected—54c. per lb.

But at the time of taking the control of the copper trade, the Chilean Government lacked an adequate agency to handle this matter, the Government decided that the most suitable agency it had was the Central Bank, as it is the body which controls the Chilean balance of payments.

After its failure to place copper at the minimum price of 54c. per lb., the Government thought that it still could expect to obtain a higher price than the ceiling one set in the United States, of 24.5c. per lb. This price was to be an intermediate one between the American ceiling and the 54c. previously expected by Chile. Thus the new price for the Chilean copper would fluctuate around 35c. per lb.

According to the unofficial reports gathered until now, most of the deals closed by the Central Bank and foreign customers, have been at 35.5c. per lb., and none has been closed at a level lower than 35c. per lb.

But this in no way implied that all future deals are to be closed at 35c. or more per lb. According to sources close to the Chilean Finance Ministry and to the Central Bank itself, the Commission entrusted by the Bank to decide on these matters, might decide, in given circumstances, to sell under that price. This would depend on several factors; the balance of payments between Chile and the country concerned; the products that Chile is interested in obtaining abroad; the currency in which the deal will be transacted, and so on. The same sources said that Chile might well decide, for instance, to sell copper to Argentina as Chile, in turn, is interested in obtaining meat from the other side of the Andean Range. On the other hand, the Central Bank might receive a very good bid which it might have to reject because of any or all of the factors mentioned above.

Stilfontein Pours its First Gold Bar

(From Our Own Correspondent) Johannesburg, July 2

The main event in the mining world here this month was the pouring of the first gold bar at Stilfontein gold mine by Mr. Jack Scott, the chairman of the company, on July 1. This is the first of the new mines to exploit the Vaal reef and, from all the information so far, it is likely to have a long and profitable life ahead. Apart from other considerations, Stilfontein has been brought to the production stage faster than all the other mines, for it was only in May 1949 that the first sod was turned at the Charles shaft.

One of the outstanding features of the property—and it seems likely that the same conditions will apply in the ground to the south where two further mines will be opened up in due course—has been the consistency of values obtained both in drilling and in underground development. Of 17 boreholes put down on reef, 16 proved payable, equal to 94 per cent. In the Free State, generally, although some much higher values were met with, out of 168, 96 were payable, equal to 57 per cent.

Development underground at Stilfontein since it started has shown an average total payability of 98.1 per cent, averaging 302 in.-dwt. to date. On the basis of this, development in recent months has averaged a much higher figure, since the original exposures in what was recognized as being the less rich proportion of the property was appreciably lower than this average figure.

NO WATER OR FAULTING DIFFICULTIES

The high rate of development was made possible by two important factors. The first was the virtual absence of underground water which made work so difficult in the mines of the West Wits line and which is still proving a headache in the Free State. The second is the absence so far of any major faulting, apart from the Kromdraai fault, whose existence was mapped in the early stages.

An important factor in the maintenance of a high rate of development was the application of a high degree of mechanization, including mechanical loaders, in driving. The result is that the mine has reached the production stage with an ore reserve, estimated by the end of March last at 1,063,000 tons averaging 7.3 dwt. over a stoping width of 40 in.

Stilfontein is one of the mines scheduled to undertake uranium production, which will add to its profits, but it has recently been announced that it will play a further part in this new industry by undertaking the manufacture of sulphuric acid for use in its own plant and in that of other mines. This additional plant will be financed by loans from the Import-Export Bank of America and the British Ministry of Supply. This will be repayable from sales of acid only and will in due course become the sole property of the mine. A further development which can be logically anticipated is that a similar plant to that being erected by Western Reefs and Daggafontein for the recovery of gold from the residues of the pyrite used in the acid process, will be installed.

FAITH IN KLERKSDORP AREA REWARDED

From the historical point of view, Stilfontein has some interesting features. As far back as 1888, Mr. Charles Scott, father of the present chairman of the Strathmore group, was a member of the original Diggers Committee of Klerksdorp and throughout his life had the greatest confidence in the future of the Klerksdorp district. In those years, however, little or nothing was done on the eastern side of the town, but it is interesting to note that a re-investigation of the Klerksdorp Townlands has resulted in the opening up of the shallow property of Ellaton G.M., which may well join the producers within the next eighteen months. Mr. Jack Scott carried on the family tradition of faith in the Klerksdorp area, for if he had not it is doubtful whether the Stilfontein-Lucas Block area would have got very far.

When the Free State boom was at its height, the old Alpha group was approached with the suggestion that, since the Basal reef had been found in boreholes at shallow depths immediately south of the Vaal River, it might well exist on the northern banks as the river is merely a drainage channel. The group, not having technical facilities, made a deal with Anglo-Transvaal to carry out a drilling programme, as the geophysical survey suggested that this theory might be correct. Two drills were put down, but in both cases failed to intersect the reef. The irony of the situation being—as was afterwards discovered—they encountered the Kromdraai fault and had they been a matter of a few feet east or west would have struck the Basal-Vaal reef horizon. The Alpha group then decided to part with its interests in the area, and they were taken up by Mr. Jack Scott, since when the area displayed consistently encouraging results.

Diamond Mining in French Equatorial Africa

During May of this year, *The Mining Journal* published a series of papers in précis presented at the three-day diamond drilling symposium held in Johannesburg in April. The papers published dealt with all aspects of diamond drilling in America and various countries of the British Commonwealth. The following article, condensed from a report in Vol. 34, No. 2 of *Mineral and Trade Notes* published by the U.S. Bureau of Mines, describes the diamond mining activities of Compagnie Minière de l'Oubangui-Oriental in French Equatorial Africa.

The Compagnie Minière de l'Oubangui-Oriental, abbreviated to C.M.O.O., was organized as a Société Anonyme Coloniale in 1929. Originally its main activity was gold mining, but following the discovery and opening of diamond deposits on the Bolé river, south-east of Bania near the road between Berborati and Nola in 1936, production from the area starting the following year, and the company has dedicated its chief interest to diamonds. The company has gradually extended its operations in western Oubangui-Chari and even into Gabon and Moyen Congo, as well as the Cameroons, so that to-day it is the principal present and potential producer in the Federation.

The exploration and exploitation activities of C.M.O.O. in western Oubangui-Chari have been confined almost entirely to the large area of sandstone, commonly considered as the stratigraphic equivalent of the Lubilash, a geological formation very similar to that in the Belgian Congo diamond fields, or to the drainage areas downstream from the sandstone. Production has been mainly around Berberati, Carnot, and Nola, and the area along the Lobaye River and adjacent to the Sangha downstream of Nola has been prospected extensively.

The diamonds are found mainly in the gravels of the rivers, which cross the zone of outcrop of the lower part of the horizontal continental Lubilash sandstone. This formation is made up of a conglomerate sandstone, with quartz pebbles inside a kaolinitic cement, generally rose or red, and with a pronounced cross-bedding. The basal horizon is often ferruginous and conglomeratic. It shows well-rounded and larger elements, always bearing witness of an old peneplaned topographic surface.

NATURE OF OCCURRENCES

The diamonds of the Berberati area are like those of the Kasai, Belgian Congo, and the minerals that accompany the diamonds in the Berberati area likewise are found upon panning for gold and are in addition to quartz and chalcedony, kyanite, garnet, corundum, rutile, zircon, ilmenite and tourmaline.

Sections indicate that the large pre-Lubilash furrows should follow the courses of the upper and central Mambere as well as that of the Lobaye, these rivers themselves having taken their courses into pre-existing valleys. The Mambere apparently at one time flowed entirely along this course, before its capture by a river, which now forms the lower Mambere. These considerations explain diamond discoveries that have been made between Baronda and Lobaye.

The operations of C.M.O.O. are divided into the Carnot North, Carnot South, Berberati, Baronda, and Lobaye Divisions. The Carnot North is within the basin of the Membere below Carnot. The Carnot South division lies south of the above area. The Berberati division is to the west of Carnot South and is within the area of the Berberati quadrangle. The Baronda division lies east of the Mambere and south of Bania. The Lobaye division is on the river of the same name and northwest of Boda, on the Berberati-Bangui road. The C.M.O.O. operations, therefore, are upstream of the S.M.O.L. Lobaye Concession.

The C.M.O.O. has followed very closely the system of mining and concentration used in the Belgian Congo and Angola, within the Baronda division. Nine pan washing plants were operating in April 1950, one, an 8-ft. unit at Bolé Moyen, the others 5-ft. units in service as follows: one at Sao, two at Bolé Aval, three at Gougourou, and a fourth under repairs at the latter camp. All of these camps are a few kilometres from or adjacent to the road between Bania and Nola. The Lopo development is the latest planned.

OPERATIONS IN THE BARONDA DIVISION

Lopo is about 10 kilometres north-east of Nola and immediately east of the road where a flat from the damming of the valley by a resistant mass of quartzite, leaves only a small channel for passage of water. The flat has been prospected by closely spaced prospect pits, and the values are known to occur over an area at least 800 metres long and 200 metres wide. The Lopo River is said to be diamantiferous upstream throughout a large part of its 30-kilometre course. Downstream, below the quartzite dam, the values decrease below commercial tenor and there is an extensive marshy area adjacent to the Mambere, about 1,200 metres away.

The average thickness of overburden and gravel at Lopo, within the area prospected, was reported as 1.50 metres and 1.00 metres respectively. Sixty thousand carats are said to have been blocked out within 800 metres along the stream. Plans have been made for an elaborate system of mechanical shovels and draglines for stripping, mining, and loading the gravel through a hopper onto a transverse conveyor belt, which discharges onto a longitudinal belt feeding the washing plant. Drainage is through a 10-metre deviation canal through the centre, and this has been partly finished. Additional drainage capacity is to be provided by a second bridge on the road and by cutting a second channel through the quartzite dam.

The proposed installation called for concentration of the diamantiferous gravel in two 5-ft. pan-washing plants, each served by two working faces. Additional faces would be prepared in advance for mining, by casting the overburden into the mined-out ground. Total planned capacity would be about 100 cu. metres per hour with three shifts worked. The two washing plants would be mounted on wheels and would advance upstream parallel to the adjacent drainage ditch as mining progressed. One of the pan plants was already in service in May, 1950; the power was supplied by a 50-h.p. diesel engine. This installation was typical, with two pans in series and with Hartz jigs for handling the pan concentrates. The ratio of concentration for the entire unit was given as 1:200 on the basis of volume; the pan itself is 1:40. The plus-18 mm. gravel is rejected by a trommel ahead of the primary pan.

MECHANICAL EQUIPMENT

The mechanical equipment used on this installation includes two 22-B Bucyrus-Erie shovels with ¾-yd. buckets and 15-ft. booms and one 15-B dragline of the same manufacture and with a 1½-yd. bucket. This equipment began work in February, 1951. Two International tractors, one TD-24 and one TD-18, were begun in August, 1951. This equipment has a bulldozer blade and a power winch for pulling out the stumps of large trees, cut down by power saws. Instead of a second 5-ft. pan, an 8-ft. pan was placed in May 1951. An 800 metre conveyor belt began work in 1951. It was expected that an additional 1,000-metre belt conveyor, six more 22-B units, and three more tractors, would be in service by early 1952.

The mechanization at Lopo has not completely eliminated hand labour, and it was expected that 100 men would still be required, the majority to clean the quartzite bedrock after the gravel was mined mechanically. To obtain a comparable production by hand mining, according to the assistant to the manager, 500 men would be required. This is an experimental mechanized operation and its successful application will probably lead to others. To date the results are said to be encouraging.

THE BOLÉ OPERATIONS

Concentration at the Bolé Moyen camp was by an 8-ft. pan-washing plant of conventional design, handling 120 cu. metres of gravel per hour and a total potential capacity of 2,000 ct. per month. The washer was driven by a 50-h.p. locomobile; the unit consumed five cu. metres of firewood per eight hours. The flat being worked was 200 metres wide and values were fairly continuous for 800 metres along the stream, although a portion had already been worked out. The overburden averaged 1.50 metres thick and the gravel 0.55 metre.

The Bolé Aval operation is about 4.8 kilometres downstream from the Bolé Moyen. Here two 5-ft. pan washers were in operation, each powered by a locomobile. Output from the two plants was about 1,000 ct. per month. The average section here was 1.20 metres of overburden and 0.50 metre of gravel.

Both of the Bolé workings employ hand-stripping and casting into worked out ground and hand mining into wheelbarrows, which transport the gravel to a nearby dock where it is dumped through a chinaman chute onto a belt conveyor, which supplies the plant. The conveyors are driven by 8- to 10-h.p. diesel motors. The size of the motor is reportedly a function of the length of the belt, and works out at about 2 h.p. per 100 metres of belt. The belt installation seems satisfactory, although moving is a problem. It is sectionalized but the framework supporting the belt, rollers, and idlers appeared to be of heavier construction than actually required. In the stripping operations, one man handles an average of eight cu. metres per eight hours. One difficulty encountered at Bolé is tree stumps.

The Bolé operations are carried out in 800-metre panels and, reportedly, there are reserves for some time to come. The bedrock in the area is quartzite, gneiss, and schist. C.M.O.O. has done considerable advance exploration, particularly along the streams crossed by the road between Bania and Baronda. Extensive virgin flats are reported along the Wodo and Mangala Rivers, which are, respectively, 13 and 31 kilometres along the road from Bania. A flat down the Mambere two kilometres below the ferry crossing at Bania has been prospected. It is said to be along an old channel of the river on a bend, is 50 to 200 metres wide, 1 kilometre long, has thin overburden, and contains 60,000 carats. Plans have been made for the experimental mechanical sampling of the Mambere itself, which is believed to be diamantiferous. However, there are practical difficulties attending the dredging of the river channel.

C.M.O.O. has built a central picking station on the Batouri River, about 5 kilometres out of Berberati, just off the road to Carnot. The plant and the adjacent compound are almost a duplicate of those in the Congo. Early experience indicated that it was necessary to make some changes in the installation. One of these was to provide removable grease table tops because of the tendency of the kyanite, one of the satellite minerals in the jig concentrates, to stick to the grease along with the diamonds. The screening section of the plant recovers a minus-8-millimetre fraction as an important gold content is ofen found in this.

Mining in New Caledonia in 1951

An account of the activities of the mineral industry of the French Colony of New Caledonia—famous for its deposits of nickel and chrome ores—is given in our contemporary *Echo des Mines et de la Métallurgie*. The firmness of world metal prices last year coupled with Marshall Aid favourably influenced the industry's situation and led to the inauguration of exploratory work for nickel, chrome and particularly manganese ore deposits. Output of nickel ore from six mines, viz., Thio, Pin-Pin, Medona, Tao 5, Tunneg 10 and André, amounted to 252,335 tonnes, the highest output recorded since 1942 (256,555 tonnes), but still greatly below the level of 1940 of 461,111 tonnes The lion's share of this output—195,500 tonnes was accounted for by the mines of the Société le Nickel on the Thio plateau (on the east coast of the island) which aggregated 81 per cent of the company's total output. No shipments of nickel ore had been made since 1947, but last year brought a resumption—6,960 tonnes being exported to Japan and 50 tonnes to Canada. Progress was made with the modernization and re-equipment programme which was scheduled for completion by April of this year. The plant of the Société Le Nickel in Pointe Donianbo operated with a single water-jacket and four electric furnaces until an explosion of one of these furnaces put the electrical installations out of order. The water-jacket furnaces produced 3,613.8 tonnes of matte (77% Ni), and the output of the electric furnaces (averaging 33 to 36% Ni) totalled 1,868.7 tonnes. An interesting metallurgical innovation made since 1950 was the heating of the air blown into the furnaces. Matte exports last year totalled 4,142 tonnes.

New Caledonia's chromite output totalled 88,792 tonnes, thus equalling the record figure registered in 1949. Exports totalled 93,141 tonnes; nearly two-thirds or 60,945 tonnes were shipped to the U.S.A., 15,207 tonnes to France, 12,090 tonnes to Norway and 4,899 tonnes to Australia. The main chrome ore producer was the Tiébaghi mine (situated on the west coast) which has been exploited for the last fifty years. Its output totalled 58,461 tonnes of 53% concentrates against 59,605 tonnes in 1950. The second largest producer was the Chagrin mine with an output of 24,086 tonnes (of which 19,645 tonnes of concentrates of 55%) against 19,693 tonnes in the previous year. Reference must also be made to the formation, in 1950, of a Franco-American firm, the Cie. Calédonienne des Métaux (Calmet) which has leased a large area in the Népoui region for the purpose of working, on a large scale, the low-grade (4 to 7 per cent Cr_2O_3) deposits. The operating programme envisages extraction of the material by means of bulldozers and dragline; beneficiation in a mobile plant to obtain a product of 25-30 per cent Cr_2O_3, and concentration with Humphrey Spirals to obtain 60 per cent concentrates. Rate of output is envisaged to be 100,000 tonnes per annum.

Extraction of manganese ore, started in 1949 by M. Paul Videault and pursued in 1950, was continued at an accelerated rate in the year under review. A total of 20,135 tonnes, containing from 48 to 52 per cent Mn., was extracted, against 5,392 tonnes in 1950. As to the other mineral deposits, exploitation of iron-ore mines in the Carénage region, started in 1950 under an agreement with Broken Hill, was not pursued in 1951. The Société Le Nickel also extracted 15,777 tonnes of gypsum from the Pouembout quarries, and 435 tonnes of giobertite (magnesite) at Voh.

American Aid for Mines of the Free World

The following article indicates the scope of the American assistance made available to mines of the free world prior to the establishment of the D.M.P.A. In last week's issue of *The Mining Journal*, Part I of the article dealt with the African continent. The concluding instalment here presented tells of what has been achieved in Europe, Asia, and Central America.

Marshall Plan aid to a project in Austria has been expanded in order to provide Western Europe with more iron and steel for rearmament. The original project provided for iron ore development in the Erzberg area, but in view of the increasing demand it was decided that output should be stepped up from the earlier goal of 5,500 tonnes of ore daily to 7,400 tonnes. This involves additional equipment and mining installations costing the equivalent of $2,326,000. E.C.A. allocations amounting to $2,326,000, or about 27 per cent of the total, are financing the cost of American equipment to supplement U.S. equipment already in use at Erzberg, for which $1,976,000 had previously been made available. E.C.A. has also authorized the use of up to $442,000 to finance the cost of drilling equipment required for oil exploration in Austria.

In Norway a potential source of nearly 300,000,000 tons of low grade iron ore is being exploited with finance from E.C.A. The ore has been located in the Dunderland field of N.W. Norway, and E.C.A. will finance the cost of up to $120,000 worth of drilling equipment and perhaps plant and machinery needed to carry out intensified exploration.

Last year E.C.A. announced a new project for the exploration of manganese deposits in Greece. To help finance a search for this mineral in the island of Samos and in the Grantitis district of the Greek mainland, advances aggregating 1.8 billion drachmas (equivalent to $119,000) are being made to two Greek mining companies, which will themselves contribute 30 per cent of the total funds required. Under another E.C.A. plan the ancient silver, lead and zinc mines of Laurium, which made Athens rich nearly 2,500 years ago, are being brought into production once again to provide strategic materials for the Western nations.

ASSISTANCE FOR YUGOSLAVIA AND TURKEY

It was expected recently that M.S.A. would agree to extend its investment guarantee provision to Yugoslavia. This action comes in response to a remarkable show of eagerness by several American concerns who are willing to provide equipment and technical assistance to Yugoslavia on a loan basis. Their interest centres in oil and non-ferrous mining, and some industrial factory projects.

Yugoslav production enterprises, however, are all nationalized and the Government will not permit their dilution by private ownership. Accordingly, investors have no prospect of any ultimate equity. Nevertheless, several American interests seem willing enough to make long-term loans.

Presumably, a typical arrangement would find an American firm supplying, for instance, mining machinery, entering into what amounts to a management contract, obtaining fees and interest and repayment in dollars through sales of ore or metal, or by marketing the product itself.

The M.S.A. investment guarantee insures against expropriation loss (a risk less from any Yugoslav action than from war and Russian conquest) and against inability to convert local currency earnings and payments into dollars, but not against business loss of commercial risks.

In Turkey E.C.A. is bridging a gap of 1,400 years by assisting the development and re-opening of lead mines which have lain idle since about A.D. 600. One of the objectives of this plan is to make Turkey as nearly self-sufficient in lead as possible, in order that foreign currency may be conserved for the purchase of other products. E.C.A. dollars are also financing about 28 per cent of a road programme in Turkey, which is expected to cost the equivalent of $58,000,000. This programme will facilitate the exploration of undeveloped mineral resources including chromite; iron ore, zinc, copper and asphalt.

BENEFITS IN MALAYA, THAILAND, THE PHILIPPINES AND NEW CALEDONIA

In Asia mining and prospecting will benefit from a number of projects designed to assist the general development of the territories concerned. Two U.S. Government experts are on loan to E.C.A. for a Technical Assistance Programme project to study the proposed construction of a reservoir dam near Kuala Lumpur, Malaya, has also been accorded Marshall Plan aid for a very large road development programme, which is designed to strengthen the territory's economy by opening up new sources for strategic materials and facilitating transport generally.

E.C.A. is helping the Government of Thailand to determine the extent of deposits of lignite, tin, tungsten, antimony, lead and zinc, and to mine and process them. The minerals development project in this territory calls for an exploration programme to determine the location, grade and extent of ore deposits, followed by underground mining and the installation of ore processing plants. Considerable importance is attached to the development of the country's lignite resources in order to preserve timber, which is at present the principal fuel used. E.C.A. has provided $51,000 for the purchase of two briquetting machines from Switzerland for the establishment of a pilot plant for processing lignite.

In the Philippines allocations amounting to $3,080,000 have set the stage for the launching of five major economic development projects, one of which is the development of the island's coal mines and rehabilitation of the School of Mining at the University of the Philippines.

Last year E.C.A. agreed to increase up to $737,000 and the equivalent of $417,000 in Marshall Plan counterpart funds to Lehman Bros. of New York and the New Caledonian Co. of Calmet to step up the output of chrome concentrates in New Caledonia. Under the terms of the contract the firm will repay the advance plus 4 per cent interest with chrome concentrates, shipments beginning not later than December 31, 1952, and being completed by the end of the following year. E.C.A. will also make large purchases of the ore with its 5 per cent share of French counterpart francs. The Sté. Le Nickel has received a substantial Marshall aid grant to reorganize the nickel industry in New Caledonia.

BAUXITE DEVELOPMENT IN JAMAICA

A total of $11,747,000 in dollars and £3,300,000 in counterpart funds has been advanced for the development of bauxite in Jamaica. Under the terms of a contract signed between E.C.A. and the Reynolds Metals Co. and its subsidiaries, Reynolds Jamaica Mines Ltd. and Reynolds Mining Corporation, E.C.A. agreed in 1950 to advance up to $5,963,000 in Marshall Plan Funds and £1,800,000 sterling. The Reynolds Metals Co. had previously spent approximately $1,000,000 in exploring the possibilities of obtaining bauxite from deposits in its possession and was contemplating the

expenditure of a further $1,000,000. Funds amounting to $2,500,000 and £1,500,000 are also being advanced to Jamaica Bauxites Ltd. to finance the construction of a plant having a production capacity of about 40,000 tons of alumina per annum, the purchase and installation of plant and equipment, and the establishment of related mining and transportation facilities. The project is expected to be completed by the end of 1953 and the money will be repaid in aluminium added to the U.S. stockpile over a period of eight years. Thus far, Jamaica Bauxites Ltd., a subsidiary of Aluminium Ltd., has invested the equivalent of $3,400,000 Canadian dollars in acquiring freehold property in Jamaica and in research and development of bauxite deposits in the island. Under a third agreement concluded last year, E.C.A. is advancing a further $3,284,000 to Reynolds Jamaica Mines Ltd. According to the contract, Reynolds will also spend approximately £450,000 on its expansion programme, which is expected nearly to double bauxite production from the company's Jamaica mines. Repayment of the E.C.A. advance, with interest, will be made in supplies of aluminium over an 11½-year period. The company's present capacity of bauxite mining and shipping facilities at Jamaica are to be increased from 410,000 to 750,000 tons per annum. The new agreement gives the U.S. Government an option to purchase for dollars, in addition to the aluminium to be delivered under the contract, not less than $750,000 nor more than $1,500,000 worth of aluminium.

ANGLO AMERICAN INTERESTS IN BRITISH GUIANA

The U.S. Government is advancing £39,000 sterling from Marshall Plan counterpart funds and $23,000 from its overseas development fund for industrial diamonds exploration in British Guiana. The funds are being advanced to Kurupung Placers Ltd., which is jointly owned by British and American interests. Since 1947, Kurupung and its predecessors have invested over £27,500 in diamond exploration. If diamonds or other minerals are found in commercial quantities, the funds advanced, plus interest, will be repaid to the U.S. in shipments of the minerals. Under the contract, deliveries will start on January 1, 1953, and end in December, 1957. Repayment in diamonds will only be made if the exploration undertaken by the company proves successful. The contract grants E.C.A. an option to purchase up to 50 per cent of the output during the 10-year period following its completion, the balance being available to other countries outside the Iron Curtain.

Patterns in Pneumoconiosis

At the fourth conference of the McIntyre Research Foundation, held in Noranda, Quebec, earlier in the year, Dr. J. Gough, Professor of Pathology and Bacteriology in the Welsh National School of Medicine at Cardiff, read a paper in which he described his latest experiences in the study of pneumoconiosis more particularly among the coalminers of the anthracite and semi-bituminous areas of South Wales. He distinguished sharply silicosis due to exposure to serious concentrations of silica dust, from pneumoconiosis due to dust inhalation in which the silica content is either absent or very slight, say from 1-2 per cent of free silica.

Incidentally, he mentioned that Dr. Murray, of the South African Institute for Medical Research at Johannesburg, had told him recently that a new type of silicosis had developed on the Rand among men who had worked there during the last two decades. But though this type of trouble tended to be much more localized than the forms earlier examined, tuberculosis was still liable to occur as a destructive complication. The gold mines of Mysore have long been recognized as presenting anomalous features to observations of silicotic subjects from metalliferous mines in other countries. He found that some specimens of workers in the Kolar mines showed symptoms more resembling coalminers' pneumoconiosis, and quoted earlier investigators to the effect that the Kolar dust consisted to a considerable extent of inert dust.

In South Wales simple pneumoconiosis is very prevalent, being experienced principally in the anthracite and semi-bituminous regions, and was also prevalent in Scotland, common in France, Belgium and Germany, and apparently little observed in some of the United States' coalfields. In Cumberland on the other hand its incidence appeared extremely low. In many cases workers affected by simple pneumoconiosis were capable of carrying on their occupations if given lighter employment or where working conditions were made more favourable. With the relaxation of the earlier legislation, many lightly affected men, formerly excluded, are now applying in considerable numbers for re-employment. Incidentally it had been shown that withdrawal from the pits did not remove the liability to the development of massive fibrosis associated with infective agents and that such cases were as liable to deterioration as if the subjects had continued mining. Recent studies had shown that massive lesions of coalminers' lungs revealed a very high proportion of tuberculosis infection.

Coal, of course, is a complex mineral containing, besides pure carbon, a number of inorganic compounds, and coal dust must therefore be regarded as potentially harmful, even where the silica content is low. He found that the lung conditions of coal trimmers at the docks, who worked in an atmosphere thick with coal dust, was practically indistinguishable from those of faceworkers underground, and he rejected the earlier hypotheses that long underground journeys productive of bronchitis, or explosive fumes, were in any way responsible. The problem therefore resolves itself as one for individual coalfields or even mines. There was convincing evidence that agents other than tubercular infection superadded to pneumoconiosis must be taken into account, more particularly pulmonary heart disease induced from dust concentration in the lung. But since commercial coal always contains silica and usually some quartz, some doubt remained as to whether changes in the lungs of coalminers might not be due to this small proportion of silica. However, the difference in the lung lesions in his opinion deserved recognition as a separate form of pneumoconiosis. Thus the conclusion was reached that all dust in coal mines might be harmful, and should be suppressed, and this would seem to include the inert dusts used to minimize the liability to dust explosion, and to leave us only with the possibility of watering with the well-known objections that have been brought against this practice.

Dr. Gough stated that an investigation of the effects of aluminium on cases of silicosis is now being undertaken by the Medical Research Council in laboratories, but the results are not yet available. He also found that the pneumoconiosis of graphite workers and of boiler scalers was identical with that of coalworkers and except for the difference in colour, haematite miners showed similar results. Examination of tin oxide and barium oxide workers in the United States seemed to present a similar type of lung lesions to those in coalworkers.

Mining Progress in Scotland 1951

Output of saleable deep mined coal in Scotland increased from 23,308,900 tons in 1950 to 23,605,200 tons in 1951, states the recently published Command Paper 8521, "Industry and Employment in Scotland 1951." It would appear that this improvement was partially due to the beneficial effects of the two important wage awards made during the year as the average percentage of absenteeism showed a small but welcome decline from 10.63 to 10.19 while coal lost from disputes fell from 498,800 tons to 252,650 tons. Another important repercussion of the wage awards was reflected in the general increase in the coal-mining manpower, the number of workers on colliery books rising to 82,175 compared with 80,862 in 1950; face-workers totalling 36,380 against 36,240 previously. However, much of the additional labour intake was composed of inexperienced miners and youths which accounted for the drop in the overall output from 22.4 cwt. to 22.2 cwt. per manshift and for decreased production at the coal-face from 52.62 cwt. to 52.00 cwt. per manshift.

Of the total saleable deep mined coal, 3,834,000 tons came from surface drift mines, a substantial improvement over the 1947 figure of 2,075,000 tons. Additionally, output from opencast workings contributed 731,000 tons compared with 589,000 tons in the preceding year thus giving a provisional total production figure for the year of approximately 24,300,000 tons compared with 23,900,000 tons in 1950.

Prospects for increased production from opencast sites, states the Report, given reasonable weather, are favourable. There are also good grounds for believing that the production of deep mined coal will also record an improvement. Nine new sinkings, expected to produce 27,000 tons of coal per day, were in hand at the end of 1951, six other schemes had been approved and one of the 19 reconstruction schemes started at various times since 1947 was completed at the end of last year.

In the field of mechanization, attention continued to be given to the application of power loading equipment to thin and steeply sloping seams. Experiments in the mechanical loading of coal from thin seams were carried out by attaching special "flights" or scoops to the coal cutter's chains. This proved to be partly successful but did not, by any means, solve the problem. Nor did the experiments with a Samson Stripper furnish a complete answer. However, in this case the machine was installed in a seam where the top coal was hard and roof conditions difficult, which restricted operations. The installation of two new armoured conveyors suitable for operation on a continuous mining system operated satisfactorily. They are mechanically propelled, are capable of carrying a mounted coal-cutting machine and are likely to be widely used.

NEW TYPES OF SURFACE CONVEYOR USED SUCCESSFULLY

A new type of conveyor for use on the surface was also tried with success and at one surface drift where it had been operating for over six months, no difficulties had been encountered. This new type of conveyor has been designed by Cable Belt Ltd., in association with Resistance Welders Ltd., Inverness, and is 800 yd. long and delivers about 800 tons of coal daily. The novel feature of this apparatus is that the belt is used solely as a carrying medium, power being transmitted by means of wire ropes. This permits the use of a cheaper belt than is necessary on a conventional conveyor in which the belt both carries the load and transmits the power. Longer unbroken runs of belting and steeper inclines are also possible. Other conveyors of this type, the Report states, are to be installed in Scottish collieries.

WINNING COAL BY "TREPANNING"

The production of the above conveyor was one of the features of the production of Scottish coalmining machinery during 1951 which, in the matter of coal cutters, rose from 75 to 80 per cent of the total United Kingdom production. A further notable advance in the development of coalmining machinery emanated from the works of Anderson Boyes & Co. Ltd., Motherwell, who, drawing on their experience gained in producing the Meco-Moore cutter-loader, produced a machine which wins coal by a new method similar to the machine shop practice of "trepanning"—cutting the coal and feeding it, without handling, on to a conveyor belt.

Unfortunately, the Report gives only scant details of the work carried out by the Geological Survey in Scotland. However, it is recorded that the Survey gave information and assistance to a firm which is mining barytes in Renfrewshire and to others investigating the possibility of mining lead and zinc in the Leadhills-Wanlochead district and magnetite in Tiree.

The Survey continued its revision of the geology of the Scottish coalfields, an operation which was virtually completed in Midlothian. Progress was also made in Clackmannon and West Fife. Boring undertaken to investigate the carboniferous strata near Slamannan was begun in February and by mid-December had reached a depth of 2,916 ft. The whole of the limestone coal group has been bored through and it is now known that at this site the coal seams of the group, with one exception, are too thick to be worked. The exception is a seam of 2 ft. 4 in. thick at a depth of 2,112 ft., which has been identified as kilsyth coking coal.

EXPANSION OF OIL THROUGHPUT AT GRANGEMOUTH REFINERY

Scotland's shale output in 1951 was 1,410,000 tons, which yielded 27,450,000 gal. of crude oil and naphtha compared with an output of 1,450,000 tons yielding 29,240,000 gal. in 1950. Oil refining operations were carried out at Grangemouth, Pumpherston, Ardrossan and Dundee, the output of principal liquid oil products rising from 211,000,000 gal. to 413,000,000 gal. The expansion in the throughput at the Grangemouth refinery, where every endeavour is being made to make good the loss of refined products from Abadan, was impressive, the crude oil throughput increasing to about 1,500,000 tons compared with only 658,000 tons in 1950.

Other information of interest to readers of *The Mining Journal* contained in the report concerns the extension of the British Aluminium Company's rolling mills at Falkirk which was brought into production during the year and was on continuous double shift operation from July to December.

Reference was also made to the Yorkshire Copper Works which had secured approval for the extension of their Barhead works by 26,000 sq. ft. This scheme, when completed, will treble the works output and widen the range of the company's copper and copper alloy tubing products.

Good progress continued to be made in 1951, the Report declared, with experiments on the use of peat as a fuel for gas turbines. John Brown & Co. Ltd. completed a peat closed cycle gas turbine to form the first peat-burning gas fired air heater and coupled it to their experimental 500 h.p. turbine in the world.

MACHINERY AND EQUIPMENT

An All-British Armoured Conveyor

With so much of our national economy based on the traditional British trade of coal mining, it is perhaps fitting that the Cowlishaw, Walker Armoured Snaking Conveyor is a piece of all-British mining equipment. This new silent snaking conveyor is presented by the manufacturers as having several outstanding features.

It is claimed to afford complete protection for the return chain with effortless snaking, even on a soft floor. An additional advantage is the fact that the equipment gives immediate accessibility to the return chain, as any top pan may be taken off without disturbing the rest of the conveyor.

Other benefits are stated to be the realization that the bottom pan has 3.5 times the bearing surface of orthodox designs, and so will carry the heaviest coal-cutter regardless of a soft floor. The silent and frictionless running of the chain ensures minimum power consumption and maximum safety. The equipment is finally presented as being moderate in price.

On July 3, during the Institution of Mining Engineers' summer meeting, members of the Institution were invited to visit Cowlishaw, Walker's factory. They saw many examples of quantity production methods of the manufacture of coalface

The C.W. All British Armoured Snaking Conveyor

machinery, and a selection of complete chain conveyors, which constitute a major portion of the firm's activities, were also on display.

The full scale model of a longwall coal face was shown, loaned by the N.C.B. The model was equipped with a Cowlishaw, Walker Patent Armoured Snaking Chain Conveyor on which was mounted a longwall coalcutter, and other equipment included yielding props and hinged roof bars which enable the armoured conveyor with its coalcutter to be placed in front of the support flush with the coalface. The method of operation is for the coalcutter to be pulled along the top of the conveyor, which acts as a rail track, while the coalcutter undercuts the coal to a depth of approximately 3 ft. to 4 ft. The coalface is then bored for shotholes and on firing, as much as 70 per cent of the blasted coal falls directly on the conveyor. This percentage is thus untouched by hand. The remaining loose coal is loaded on to the conveyor, and finally the conveyor itself is pushed forward by compressed air jacks to its new position. It is then ready to commence the operation of undercutting once more. At this stage the roof supports are moved forward to suit the advance of the conveyor.

The manufacturers consider that this method of continuous mining offers great possibilities.

Mining Equipment in Aluminium

The annual report of the Aluminium Development Association for the year ended December 31, 1951, points out that interest in the use of aluminium for mining equipment quickened during the year and following the successful performance of the aluminium cages at Gresford Colliery, the number of orders for aluminium cages and tubs has increased.

Light alloy roof supports, in particular forged aluminium roof bars and props made from extruded sections, are now being increasingly used following the development of designs in Germany, and full details of the components used were obtained. In some cases the Association has arranged for systematic tests to be made on these components. Continental progress with aluminium in the field of roof support is considerable, and this aspect was studied during a tour of the important establishments in Northern France, Belgium, and the Ruhr. The design of a prototype roof chock in aluminium alloy closely followed the existing steel chock and is estimated to reduce the weight by 40 per cent.

A document on the repair and maintenance of aluminium mining equipment was prepared at the request of the National Coal Board and was circulated by the N.C.B. to all Divisions. Safety was not forgotten, and the ban on the use of magnesium alloys in coal mines has led to questions regarding the susceptibility of aluminium alloys to sparking, and the Association undertook tests with the Safety in Mines Research Establishment.

Other developments initiated included the use of aluminium for trailing cables, and the use of roof supports familiar to British miners as distinct from those of German origin. An attempt was also made to assess the saving in power on underground haulage in a particular case when light alloy was substituted for steel in the large mine cars used. Material has been supplied for prototype tests on ventilation ducting, conveyor plates and rollers. The corrosion tests arranged by the Association on aluminium alloys in three mines are arousing interest in the N.C.B.

Flameproof Battery Locomotives

Small battery locomotives have been used successfully in coal mines for many years for specified duties in certain underground conditions. Now the English Electric Co. Ltd. has developed a battery locomotive intended for main road haulage and fast man-riding duties. The unit embodies several novel features, the most important of which is presented by the manufacturers as the arrangement of the traction motors and their reduction gearing. By use of a double reduction gear and the introduction of an idler into the gear train, the motor need not be confined within the space between the road wheels but may take full advantage of available locomotive width. Thus relatively large motors may be used on small rail gauges whilst maintaining the diameter of the road wheels at a minimum.

Several important consequences arise as a result of this feature. The use of small diameter road wheels permits the installation of a large capacity battery within the available headroom and although axle hung motors are used, the unsprung weight on the track is a minimum, with the result that track maintenance is reduced. These advantages are coupled with those usually associated with straight spur gearing.

Other benefits of the feature are that the control of the traction motors is accomplished by a set of electro-magnetic contactors operated by a driver's controller in each cab, so that at approximately 24 tons duty two locomotives can be coupled together as a unit for operation by one driver. The locomotive is in addition available with a driving cab at one or both ends. For either type the battery can be supplied in a single container arranged for rolling off, or in two containers arranged for lifting off. Westinghouse air brakes with emergency features are fitted, each item of electrical equipment is designed to B.S.S. 229-1940 and is certified F.L.P. by the Ministry of Fuel and Power, and the mechanical parts are manufactured by Messrs. E. E. Baguley, and batteries by the D.P. Battery Co. Ltd.

METALS, MINERALS AND ALLOYS

The steel strike in the U.S. continues. President Truman still refuses to invoke the Taft-Harley Act on the grounds that there is a "conspiracy" among the major steel companies to prevent a settlement of the strike. Meanwhile, the loss of steel production is reaching great proportions. Over 13,000,000 tons of steel have been lost and this figure will grow even if the strike were to finish immediately. The acting director of the Office of Defence Mobilisation has said that all tonnage gains achieved by the steel industry since the outbreak of the Korean war have been wiped out. Mr. Truman has complained that the production of tanks, shells and other munitions have been reduced, despite the earlier promise that the defence needs would be met. The nation faces vast losses of food because of the lack of cans and the absence of any facilities which could be substituted. The steel shortage will probably lead to the abandonment of the plans to decontrol steel at the end of the year.

The sympathetic strike of the iron workers at this time of the year will have results lasting up to next Spring. Ten per cent of the iron-ore expected to be moved this year has not been shipped and the time before the ports are frozen over is limited.

COPPER.—At the end of last week the Ministry of Materials announced a £6 increase in the sales price of electrolytic copper bringing it to £287 d/d. The Ministry have now agreed a buying price with the Commonwealth producers to be operative at any rate until the end of this month of 33.694c. per lb. (approx. £270 per ton) based on the average *E. & M. J.* price for the first eleven days of June and 33c. for the remainder of the month. Whether August will see a further rise in price remains to be seen. Although the Ministry is known to be opposed to any further increases in the selling price its hand might be forced by those producers who are not satisfied with the present level of prices. In some quarters 34¢. per lb. is being put forward as a more realistic price and if this increase were agreed to this would mean another £5 to £6 increase in the Ministry's selling price.

In the course of his annual report to the British Non-Ferrous Metals Federation the retiring President, Mr. W. J. Terry, pointed to the adverse affect which the sharp increase in copper and other base metal prices since the end of the war had had on the development of new uses for the metals. "Because of these high prices," he said, "there has not been any encouragement to develop new uses for non-ferrous metals and for this reason research and development were not able to play the important part in our industry which they might have done."

LEAD.—Following increases totalling £8 a ton in the U.K. lead price at the end of last month, the Ministry of Materials has now reduced its selling price again by £6 to £131 per ton. This is stated to have been possible following agreement with Commonwealth producers on the buying price, although the extent of the concession made by the producers is not revealed.

The East St. Louis spot price of lead is now quoted at 15.80c., equivalent to about £127 per ton.

Recently the U.S. Senate was considering a Bill to extend the suspension of duties on metal scrap for a further year. Originally, this Bill would have included lead scrap, but, because lead is in good supply in the U.S. and because the import tariffs were recently re-imposed on virgin lead, the Senate agreed to exclude lead scrap. The Bill is going back to the House of Representatives for final approval.

The fate of the 30,000 tons of lead which D.M.P.A. is expected to buy seems to be undecided. An official of the Armed Services Committee said last week that D.M.P.A. had abandoned the idea, but the D.M.P.A. chief, Mr. Jess Larson, was emphatic that the purchase would be made as soon as the necessary funds were produced from the Budget Bureau.

TIN.—N.P.A. officials were saying in Washington last week that decontrol of tin would be economically undesirable at least for some months to come because world production was not running far enough ahead of demand to justify this action. Other reasons they gave for this view were what they described as the instability of the market and the inadequacy of the stockpile. They said that the Government did not at present have sufficient tin in the stockpile to meet the requirements of a five year war and until this target had been approached they felt the free use of tin to be risky.

As present indications are that world excess of production over consumption will, as last year, be of the order of 25,000 tons it seems reasonable to suppose that most of this surplus will find its way into the stockpile. Although we have no currently reliable figure for the stockpile it would not be surprising to find the U.S. Government ready to absorb an annual surplus of 25,000 tons for a number of years to come. Such a tonnage, after all, only represents four to five months peace time American consumption under conditions of restricted use.

ZINC.—The spot East St. Louis price of zinc is 15.00c.

Now that the average U.S. price of zinc has fallen below 18c. under last February's emergency law temporarily suspending zinc duties, the President is required to restore the import duty on or before July 28. The duty to be restored will be 7/10ths of a cent per lb. on slab zinc and 6/10ths of a cent per lb. on zinc content of ores and concentrates.

The full effect of the strike which has broken out in the brass mills in the U.S. has not been felt because of a simultaneous closure for the annual two weeks' holiday. But for this closing, zinc would have been much weaker, though whether it would have been weak enough to reduce the price is open to doubt, for there has been some buying in anticipation of the ending of the steel strike.

ALUMINIUM.—Mr. Anderson, the Defence Production Administrator for aluminium, stated in Washington last week that the D.P.A. plánned to replenish the aluminium stockpile to the extent of 15,500 s.tons in the fourth quarter of this year, as a partial replacement for the considerable tonnage removed from the stockpile last winter.

MAGNESIUM.—Plans have been announced by the Aluminium Co. of Canada to raise magnesium production at its Arvida plant in Quebec by 1,000 tons, bringing its capacity to 4,000 tons of magnesium metal per year.

QUICKSILVER.—A large discrepancy exists between the Spanish and Italian quotation for quicksilver. Spanish quicksilver for export to the U.S. is being quoted at $165 f.o.b. This quotation allows for the difference between the official dollar-pound exchange rate and the price at which sterling can be bought by Americans. The official rate would give a quotation of $177 per flask f.o.b.

Italy, on the other hand, continues to quote a selling price of $200-$205 per flask, though some sales at $198 are rumoured to have been made. The Italian reluctance to follow the Spanish example is due to the belief held in Italy that Spain has little quicksilver to offer and that once this comparatively small parcel is out of the way, buyers will have to pay the Italian price. This Italian attitude ignores the disappointing demand which led the Spanish producers to reduce the American price by as much as possible. The Italians are running a considerable risk, for their supplies are reckoned to be large. However, export figures support the Italian belief for in the first quarter of 1952, 317 tons of quicksilver were sold overseas, against only 231 tons in the corresponding quarter of 1951.

TITANIUM.—The largest titanium dioxide producer in Europe, Titangesellschaft of Leverkusen, Germany, is now wholly owned by National Lead Co. of the U.S. Previously, National Lead had held a 50 per cent interest in the German concern. Ilmenite ore for the plant, which is expected to be able to satisfy all the requirements of Western Europe, will come from National Lead's mines in Norway.

TUNGSTEN.—The American price of tungsten ore has weakened from $57.00 per s.ton unit to $55.00-$57.00. The U.K. market remains fairly steady with supplies plentiful, the price is unchanged at 425s. nominal c.i.f.

SILVER.—After a sustained downward movement in the price of silver, bringing the official quotation down from 77d. to 72½d., the market is now reported to be firmer. At one time, the downward pressure was so great and the contraction of normal demand so severe that the premium or the "free" market disappeared entirely. The later firmness has led to the re-appearance of the premium, but it is in the region of only 1d.

Iron and Steel

South Wales has followed closely on the heels of the North-East Coast in making provision for increased supplies of pig iron for the steel plants. At Margam another mammoth blast furnace capable of producing 1,000 tons of pig iron per day has been completed and is now in operation. This is a further logical step in the substitution of pig iron for scrap in the steel furnaces, and other new blast furnaces now nearing completion will further accelerate a change which has been imposed upon the steel makers by the severely reduced imports of scrap. It may be that scrap shipments will improve to some small extent, as recoveries on the Continent are increasing but this pipe line is too precarious to place any dependence upon it and the aim is to raise pig iron production to a rate of 11,000,000 tons per annum before the end of the year and ultimately the target has been fixed at 15,000,000 tons.

Already the position of the steel makers is much easier; not so the iron foundries. Normally they consume 20 per cent of the total blast furnace output but of late they have been receiving very meagre supplies and stocks are down to such slender proportions that the approach of the holidays is welcomed as an opportunity to build up reserves for the autumn.

As the Scottish holidays begin next week a shrinkage in steel production would appear to be unavoidable in spite of the fact that steel production in June was at an annual rate of 16,252,000 tons and was affected by the Whitsun holidays. Moreover, the shipment of American steel to this country cannot continue much longer as the strike is now exercising a serious influence upon U.S. industry and the steel makers are in no position to honour their commitments for the supply of material to the U.K. Everything therefore points to a period of increasing stringency in the steel trade during the next few weeks. The Government adheres to the policy of giving every encouragement and assistance to manufacturers producing for export and this means that there is still less steel for home consumption.

Belgian steel makers have agreed to a general reduction in prices but British quotations are still competitive and there is a big overseas demand for British products in general and iron pipes, tubes, steel sheets and plates in particular.

Deliveries of raw materials to the producing plants continue to improve and good stocks of fuel and imported ores have been accumulated.

The London Metal Market

(From Our Metal Exchange Correspondent)

Business on the London Metal Exchange has remained at a very low ebb but with just sufficient interest being shown by consumers and merchants to maintain the price.

Last Saturday, the Ministry of Materials announced a further increase of £6 per ton in the price of copper sold to British consumers, and this is a reflection of a further interim agreement between the Ministry and the copper producers as to the price to be paid by the former for metal purchased during the rest of July. It is hoped, that some kind of price basis will soon be established to prevent the necessity for full scale conferences at short intervals. Many people consider that the Ministry's contention that the E. & M. J. quotation is not representative of the world copper price is not valid and that the purchasing contracts with empire producers should be reinstated on basis of that question.

The lead price in Europe has shown firmness and now stands between £115/120 per ton c.i.f. whilst other markes remain unchanged.

Zinc remains completely featureless in all parts of the world.

On Thursday the official close on the tin market was: Settlement price £970 10s., Cash Buyers £970, Sellers £970 10s., Three months' Buyers £968, Sellers £968 10s. In the afternoon the market was steady and quiet. Turnover for the day was 25 tons. Approximate turnover for the week was 230 tons.

The Eastern price on Thursday morning was equivalent to £986 5s. per ton, c.i.f. Europe.

REFINED COPPER PRODUCTION AND STOCKS—MAY

(000 s.tons)

	Production			*Stocks*		
	May, 1952	*Jan.-May, 1952*	*Jan.-May, 1951*	*May 31, 1952*	*April, 30, 1952*	*May 31, 1951*
U.S.A.	98	487	541	55	61	61
Other countries	110	509	491	177	165	151
World.....	208	996	1,032	232	226	212

Source: American Copper Institute.

U.K. PRIMARY METAL STATISTICS—MAY

(long tons)

	Refined Copper	*Lead†*	*Slab Zinc*	*Tin Metal*
Stocks in U.K. May 1§	80,820	116,249	64,872	2,460‖
Imports.....	20,706	9,010	24,710	163
Production	13,116	8,939	5,300	2,776*
Consumption	33,429	14,868	13,692	1,828
Exports and Re-exports ...	69	248	2	4,086
Stocks in U.K. May 31§‡ ...	86,392	120,261	79,350	3,157‖

(Source: British Bureau of Non-Ferrous Metal Statistics)
(*) Estimated by International Tin Study Group. (†) Includes imported virgin lead and English refined from domestic ore and secondary metal. (§) Including Government stocks other than strategic reserves. (‡) In addition U.K. stocks of blister copper at the end of May were 27,727 tons; of zinc concentrates were 34,324 tons; and of tin in ore were 2,797 tons. (‖) Including tin in official warehouses but excluding smelter carry-over.

JULY 10 PRICES

COPPER

Electrolytic ... ... £287 0 0 d/d

TIN

(See our London Metal Exchange report for Thursday's prices)

LEAD

Soft foreign, duty paid ... ... £131 0 0 d/d
Soft empire ... ... £131 0 0 d/d
English lead ... ... £132 10 0 nom.

ZINC

G.O.B. spelter, foreign, duty paid ... £130 0 0 d/d
G.O.B. spelter, domestic... ... ... £130 0 0 d/d
Electrolytic and refined zinc ... ... £134 0 0 d/d

ANTIMONY

English (99%) delivered, 10 cwt. and over ... ... £225 per ton
Crude (70%) ... ... £210 per ton
Ore (60% basis) ... ... 25s.—27/6 nom. per unit, c.i.f.

NICKEL

99.5% (home trade) ... ... £454 per ton

OTHER METALS

Aluminium, £157 per ton.
Bismuth, 19s. lb.
Cadmium, 16s. lb.
Chromium, 6s. 5d. lb.
Cobalt, 20s. lb.
Gold, 248s. f.oz.
Iridium, £65 oz. nom.
Magnesium, 2s. 10¼d. lb.
Manganese Metal (96%-98%) 2s. 2d./2s. 3d. per lb. d/d
Osmiridium, £35 oz. nom.
Osmium, £70 oz. nom.
Palladium, £8 10s. oz.
Platinum, £27/33 5s. nom.
Rhodium, £45 oz.
Ruthenium, £30 oz.
Quicksilver, £65/£65 10s. ex-warehouse
Selenium, 25s. nom. per lb.
Silver 72¼d. f.oz. spot and f'd.
Tellurium, 18s./19s. lb.

ORES, ALLOYS, ETC.

Bismuth ... ... 50% 9s. lb. c.i.f.
40% 8s. lb. c.i.f.

Chrome Ore—
Rhodesian Metallurgical (lumpy) £14 2s. per ton c.i.f.
" " (concentrates) £14 2s. per ton c.i.f.
" " Refractory £13 14s. per ton c.i.f.
Baluchistan Metallurgical ... £15 8s. per ton c.i.f.
Magnesite, ground calcined ... £26 - £27 d/d
Magnesite, Raw ... ... £10 - £11 d/d
Molybdenite (85% basis) ... 104s. 9d. per unit c.i.f.
Wolfram (65%), U.K. ... 425s. nom. c.i.f.
Tungsten Metal Powder (for steel manufacture) ... 32s. 9d. nom. per lb. (home)
Ferro-tungsten ... ... 29s. 9d. nom. per lb. (home)
Carbide, 4-cwt. lots ... ... £30 3s. 9d. d/d per ton
Ferro-manganese, home ... £43 15s. 2d. per ton
Manganese Ore U.K. (48%-50%) ... ... 72d. per unit
Brass Wire ... ... 2s. 9½d. per lb. basis.
Brass Tubes, solid drawn ... 2s. 3½d. per lb. basis.

THE MINING MARKETS

(By Our Stock Exchange Correspondent)

This week markets were again steady and firm. While turnover was small, jobbers in nearly all sections of the House reported no selling; small buying orders therefore tended to find the market bereft of stock. Gilt-edged led the way. It is difficult to attribute this to any single reason, but a small revenue surplus, the better position of sterling abroad against dollars, improved coal exports, and the sound common sense speech of Mr. Deakin, probably all had their effect. Before long, the Government's measures to combat the financial crisis should begin to take full effect. The Australian Government plan to convert an existing 3½ per cent loan maturing in September and offer in exchange 4½ per cent stock 1960/62 at 98 per cent. The total issue is for £11,750,000. The British Overseas Mining Association submitted a detailed memorandum to the Royal Commission on Taxation and suggested a radical revision in existing methods. This is long overdue and it is to be hoped that the memorandum will influence the Committee.

Kaffirs generally improved. A feature was the sharp fall in Johnnies following Treasury refusal to allow the company to emigrate. Randfontein, Vlakfontein and Sub Nigel all rose on rumours of possible uranium production. Rand Selection were outstanding in the finance group following Paris buying. There was quiet optimism in the market over the improved price of free gold and the possibility that the end of the rise in working costs is in sight.

In the O.F.S. section, Western Holdings were in demand due to optimism over the coming quarterly figures. Harmony also jumped following rumours of a good reef intersection in the ventilation shaft.

West African gold shares remained idle, but there was a rather better tone. Konongo announced further good reef exposures on its Boabedroo property amounting to 13.2 dwt. over a width of 74 in. This comes from the No. 10 level drive. A winze is being sunk in order to prove the ore body at depth. Bibiani recorded a fall in gold output for June of some 700 oz. compared with May. This is attributed to an unexpected, and believed temporary, fall in the grade of ore from the surface quarry.

Copper shares were generally easier. The rise of £6 a ton to £287 a ton announced by the Ministry of Materials during the week had little effect on share prices. The Northern Rhodesian producers have agreed to pay Wankie Colliery 14s. 3d. per ton for coal, free on rail, at Wankie. This is the same price as Southern Rhodesian consumers pay. It is estimated that this will cause a rise in working costs for the copper mines of about 4s. 6d. a ton.

Tin shares were mainly better. Nigerian mines improved on rumours of a downward revision of government royalties and Malayan issues hardened following Press reports of better political conditions in Malaya. Malayan Tin Dredging surprised the market with a new issue of 400,000 5s. shares at 19s. a share. They are being offered to existing shareholders on the basis of one for every two held. The new shares will not rank for the interim dividend payable on July 31. The old shares eased following the announcement. The rights are expected to be worth approximately 1s. 4d. per share provided the present price level is held.

The improved base metal position slightly strengthened lead/zinc issues and Mount Isa attracted attention on expectations that the copper plant will come into production before long.

Manganese and asbestos shares were again favoured and recorded good gains. Wankie rose following the news of the enhanced price to be paid for its coal. Consolidated Murchison were again weak. These shares have now come back to a very low level compared with last year. Some market quarters are looking for a rather sounder basis for antimony as a result of improved position of lead.

Dollar issues were generally better following Wall Street, but prices finished the week below best. American political manoeuvres and the strengthening of the £ abroad may account for this.

	Price July 9	+ or − on week
FINANCE		
African & European	2½	+ ⅛
Anglo American Corpn.	6⅛	
Anglo-French	20/-	+ 7½d
Anglo Transvaal Consol.	26/3	− 2/6
Central Mining (41 shrs.)	36/10½	
Consolidated Goldfields	45/-	
Consol. Mines Selection	25/7½	+ 1/3
East Rand Consols	3/1½	+ 4½d
General Mining	4⅛	
H.E. Prop.	30/-	
Henderson's Transvaal	10/-	− 6d
Johnnies	2⅛	− ⅛
Rand Mines	4⅛	+ ⅛
Rand Selection	41/3	+ 2/6
Strathmore Consol.	28/9	
Union Corporation	8	
Vereeniging Estates	4½	+ ½
Writs	30/7½xd	+ 4½d
West Wits	45/-	+ 1/3
RAND GOLD		
Blyvoors	43/9	+ 1/9
Brakpan	17/4½	+ 10½d
City Deep	33/9	+ 1/3
Consol. Main Reef	32/6	+ 7½d
Crown	48/10½	− 7½d
Daggas	3½	− ½
Doornfontein	28/9	+ 6d
Durban Deep	3⅛	+ ⅛
E. Daggas	18/9	
E. Geduld ... (4/- units)	43/1½	
E. Rand Props	4	+ ⅛
Geduld	6½	+ ⅛
Govt. Areas	11/6	− 6d
Grootvlei	31/3	
Libanon	13/7½	+ 9d
Luipaards Vlei	20/3	+ 1/6
Marievale	21/9	
Modderfontein East	23/9	
New Kleinfontein	28/9	
New Pioneer	14/6	
Randfontein	22/-	+ 2/6
Robinson Deep	11/-	+ 9d
Rose Deep	25/7½	+ 1/3
Simmer & Jack	5/9	+ 1½d
S.A. Lands	40/7½	+ 7½d
Springs	7/7½	+ 1½d
Stilfontein	28/6	+ 3d
Sub Nigel	2⅛	+ ⅛
Van Dyk	13/3	+ 1/-
Venterspost	20/3	+ 9d
Vlakfontein	18/1½	+ 1/1½
Vogelstruisbult	27/9	+ 4½d
West Driefontein	6⅛	
W. Rand Consolidated	50/7½	+ 7½d
Western Reefs	42/6	+ 7½d
O.F.S.		
Freddies	8/-	+ 1½d
Freddies N.	7/-	+ 1½d
Freddies S.	8/-	+ 1½d
F.S. Geduld	3½	+ ⅛
Geofries	17/3	+ 3d
Harmony	20/3	+ 1/3
Loraine	7/3	+ 3d
Lydenburg Estates	10/6	
Merriespruit	4/-	
Middle Wits	16/6	+ 3d
Ofsits	40/-	
President Brand	22/-	+ 9d
President Steyn	19/3	+ 9d
St. Helena	17/9	+ 3d
U.F.S.C. & G.	7/3	+ 9d
Virginia Ord.	11/3	− 3d
Welkom	27/6	
Western Holdings	3⅛	+ ⅛
WEST AFRICAN GOLD		
Amalgamated Banket	1/4½	
Ariston	5/4½	
Ashanti	17/-	+ 3d
Bibiani	6/3	+ 3d
Bremang	2/9	+ 1½d
G.C. Main Reef	3/9	+ 1½d
G.C. Selection Trust	6/9	+ 3d
Konongo	2/8	+ 1½d
Lyndhurst Deep	1/1½	
Marlu	1/3	
Taquah & Abosso	3/3	+ 3d
AUSTRALIAN GOLD		
Boulder Perseverance	2/6	+ 3d
Gold Mines of Kalgoorlie	9/9	+ 6d
Great Boulder Prop.	5/6	+ 3d
Lake View and Star	16/3	+ 1/-
Mount Morgan	17/-	− 3d
North Kalgurli	14/-	+ 3d
Sons of Gwalia	8/6	
South Kalgurli	8/4½	
Western Mining	8/-	+ 4½d
MISCELLANEOUS GOLD		
Cam and Motor	39/4½	− 7½d
Champion Reef	6/6	+ 3d
Falcon Mines	8/9	+ 3d
Globe & Phoenix	24/6	
G.F. Rhodesian	7/-	+ 4½d
London & Rhodesian	4/4½	− 1½d
Motapa	2/3	+ 3d
Mysore	3/7½	+ 4½d
Nundydroog	5/9	+ 3d
Ooregum	3/-	+ 3d
Oroville	10/6	− 3d
MISCELLANEOUS GOLD (contd.)		
St. John d'El Rey	22/6¹	
Zams	36/3	− 3d
DIAMONDS & PLATINUM		
Anglo American Inv.	4½	− ½
Casts	30/6	+ 1/3
Cons. Diam. of S.W.A.	4	− ⅛
De Beers Defd. Bearer	66/9	− 1/9
De Beers Pfd. Bearer	13¾	+ ¼
Pots Platinum	10/3	+ 9d
Waterval	16/9	+ 6d
COPPER		
Chartered	62/6	
Esperanza	3/9	
Indian Copper	3/4½	
Messina	4½	
Nchanga	7½	− ⅛
Rhod. Anglo-American	58/3	− 1/-
Rhod. Katanga	12/9	
Rhodesian Selection	18/4½	+ 1½d
Rhokana	22½	− ½
Rio Tinto	23½	− ½
Roan Antelope	14/4½	+ 4½d
Selection Trust	43/9	+ 2/9
Tanks	60/3	− 9d
Tharsis Sulphur Br.	39/-	
TIN (Eastern)		
Ayer Hitam	24/-	+ 3d
Bangrin	8/1½	+ 1½d
Gopeng	11/1½	+ 10½d
Hongkong	6/9	
Ipoh	21/3	+ 3d
Kamunting	11/4½	+ 1½d
Kepong Dredging	7/3	+ 6d
Kinta Tin Mines	13/9	+ 7½d
Malayan Dredging	23/-	− 1/3
Pahang	15/-	+ 4½d
Pengkalen	10/-	
Petaling	14/10½	+ 1½d
Rambutan	11/6	+ 4½d
Siamese Tin	20/-	+ 4½d
Southern Kinta	16/-	+ 7½d
S. Malayan	25/3xd	+ 6d
S. Tronoh	15/-	
Sungei Kinta	17/6xd	+ 1/10½
Tekka Taiping	8/-	− 1½d
Tronoh	24/-	+ 9d
TIN (Nigerian and Miscellaneous)		
Amalgamated Tin	9/7½	+ 9d
Beralt Tin	20/1½	− 1½d
Bisichi	3/7½	+ 1½d
British Tin Inv.	16/3	+ 10½d
Ex-Lands Nigeria	5/6	+ 9d
TIN (Nigerian and Miscellaneous) contd.		
Geevor Tin	12/3	
Gold & Base Metal	3/6xd	+ 1½d
Jantar Nigeria	6/9	+ 7½d
Jos Tin Area	10/3	
Kaduna Prospectors	3/9	
Kaduna Syndicate	5½	+ 7½d
London Tin	6/1½	+ 9d
United Tin	2/6	
SILVER, LEAD, ZINC		
Broken Hill South	48/-	+ 6d
Burma Corporation	1/9	
Consol. Zinc	31/6	+ 1/3
Lake George	16/6	
Mount Isa	35/-	
New Broken Hill	26/6	+ 3d
North Broken Hill	57/-	+ 6d
Rhodesian Broken Hill	17/3	− 3d
San Francisco Mines	31/9	
Uruwira	8/3	
MISCELLANEOUS		
BASE METALS & COALS		
Amal. Collieries of S.A.	46/3	+ 1/3
Associated Manganese	44/4½xd	+ 4/4½
Cape Asbestos	18/3	+ 1/3
C.P. Manganese	49/3	+ 1/3
Consol. Murchison	31/6	− 5/-
Mashaba	8	
Natal Navigation	3⅛	+ ⅛
Rhod. Monteleo	12/9	+ 3d
Turner & Newall	81/-	+ 1/-
Wankie	18/-	+ 3d
Witbank Colliery	2½	
CANADIAN MINES		
Dome	$35	
Hollinger	$28	+ $1½
Hudson Bay Mining	$102	
International Nickel	$82¾	+ $¾
Mining Corpn. of Canada	£5⅛	
Noranda	$148	+ $1
Quemont	£8½	
Yukon	4/-	− 1½d
OIL		
Anglo-Iranian	5⅛	+ ⅛
Apex	40/-	
Attock	21/10½	− 1/10½
Burmah	64/4½	
Canadian Eagle	32/-	− 9d
Mexican Eagle	22/9	+ 1½d
Shell	4xd	+ ⅛
Trinidad Leasehold	28/-	+ 3d
T.P.D.	26/10½	+ 7½d
Ultramar	29/-	+ 1/4½

COMPANY NEWS AND VIEWS

Diamond Sales Attain New Peak in First Six Months

According to an announcement made at the end of last week by De Beers Consolidated Mines, sales of diamonds effected through the Central Selling Organization on behalf of South African and other producers during the first six months of the current year amounted to £38,289,457 which compares with a total sales figure for the corresponding six months period in 1950 of £31,596,275. Thus if sales continue at the present level throughout the two remaining quarters the annual turnover would be well over £76,000,000 which would contrast sharply with the 1950 total of slightly more than £65,00,000.

The feature of the recent announcement is the sharp increase in the sale of industrial stones.

The table below gives details of the sales of both gems and industrials for the past eighteen months.

Quarter	*Gems*	*Industrials*	*Total*
1951	£	£	£
March	11,296,231	2,887,817	14,184,048
June	14,190,251	6,221,976	20,412,227
September	10,476,858	4,621,082	15,097,940
December	10,817,292	4,546,457	15,363,749
Total	46,780,632	18,277,332	65,057,964
1952			
March	13,088,113	5,780,352	18,868,485
June	11,284,240	8,136,752	19,420,992
Total	24,372,353	13,917,104	38,289,457

Tekka Taiping Returns to the Dividend List

It is an incredible state of affairs that gives the British and Malayan Governments the right to extract £65,822 from Tekka-Taiping for taxation during the year ended October 31, 1951, and for the Malayan Government to take a further £34,967 in Royalty and Tin Duty payments, when the company has not, even at this late date, had its war damage claim assessed. At present the advances received from the Malayan Government amount to £68,269 while the expenditure on rehabilitation at the mine amounts to £89,200.

Year to	*Per cubic yard*			*Output*	*Per Ton Tin Ore*	
Oct. 31	*Treated*	*Yield*	*Cost*	*(tons)*	*Cost*	*Price*
	(000)	*(lb.)*	*(pence)*		£	£
1951	1,927.6	0.25	10.38	215	388	633
1950	1,900.8	0.24	9.09	200	360	405

It is quite easy, of course, to brush aside the monetary aspect here as only some £20,000 are involved but it is far more difficult to ignore the Malayan Government's violation of the principles involved in its procrastination. Indeed, it is just this kind of attitude which makes business men feel that wherever the question of morality, couched in terms of what "ought" to be done, enters into the equation between governments and private enterprise it is all too one-sided; and where the government can shift its responsibilities under a multitude of headings, no such avenues of escape are available to the individual company which must pay up or close down.

Year to Oct. 31	*Mining Revenue*	*Mining Costs*	*Tax*	*Net Profit*	*Dividend*	*Carry Forward*
	£	£	£	£	%	£
1951	221,910	118,478	65,822	39,954	10	36,101
1950	96,454	86,907	9,176	4,083	Nil	33,067

In any event, the time is coming when the bulk of the Malayan tin production will be recovered from low grade ground necessitating a high degree of mechanization or an appalling reduction of wages if the companies are to continue in operation. And while it will be small compensation for those who will be able to say "I told you so," it would appear that this situation must come about, for the ability of most companies to retain sizeable funds out of profits with which they can purchase new and modern equipment or replace existing machinery is usually nullified by the present crushing burden of taxation.

Another disheartening sign that the Malayan Government has great difficulty in reading the writing on the wall is seen in the announcement made by Mr. Stanley Wickett, chairman, in his address to shareholders accompanying the accounts that the Perak State Government has introduced new legislation providing for the payment of a heavy premium on the renewal of mining leases and also a 100 per cent increase in the annual rent. This decision has led the company to part with 674 acres of its 1,996 acre property and to renew leases over the remaining 1,322 acres. This does not, however, constitute a surrender of any significance for the company as that portion of the property discarded had been either completely worked out or had been proved to be of no economic value. The remaining ground contains a high proportion of fine tin ore and investigations have been initiated with a view to improving recovery.

Outputs during the current year, the general managers state, should improve as the dredge proceeds north, but the variable nature of the ground is likely to persist. The dredge will be closed down for four months beginning some time this month for a general overhaul.

Ex-Lands Maintains Distribution at 50 per cent

Although Ex-Lands Nigeria treated a greater volume of ground during 1951 than in 1950, the decrease in the average grade by 0.1 lb. per cu. yd. played the major part in lowering the total output by 102 tons. Specifically, the responsibility can be laid at the door of the contract labour gangs who produced 98 tons less than in 1950. The lower grade of ground worked also reflected itself in the rise in costs by £47 per ton and there were considerable rises in native wages, administration, etc., which materially assisted this upward trend.

Year to Dec. 31	*Per cubic yard Treated* (000)	*Yield (lb.)*	*Cost* s. d.*	*Output (tons)*	*Cost per ton (F.O.R.)* £	*Reserves† tons*
1951	1,836.3	0.63	1 5.2	610	216	4,609
1950	1,772.9	0.73	1 0.5	712	169	4,658

*Free on rail. †Averaging 0.90 per cu. yd. in both years.

The company is pursuing its policy of mechanizing operations whenever economically possible and has purchased a large walking dragline which should considerably augment the tin winning potential of the company.

Major-General W. W. Richards, chairman, in his address to shareholders states that the company is currently negotiating for the purchase of additional tin and columbite bearing areas and says that if these negotiations prove successful the company will probably seek Treasury permission to make a new issue of capital.

Year to Dec. 31	*Tin Revenue*	*Mine Costs*	*Tax*	*Net Profit*	*Dividend*	*Carry Forward*
	£	£	£	£	%	£
1951	428,554	131,424	96,000	59,527	50	106,984
1950	491,027	120,246	150,000	113,202	50	99,957

Ex-Lands is interested in Mines Development Syndicate (West Africa) over whose property the American Smelting & Refining Co. has taken an option. This lead-zinc property may well prove to be of great value in which case Ex-Lands stands to benefit considerably.

Henderson's Transvaal Maintains Dividend on Reduced Profits

Henderson's Transvaal Estates derives the bulk of its revenue from its subsidiary undertakings—Henderson Consolidated Corporation, Mineral Holdings, Tweefontein Colliery and Tweefontein United Collieries. During the year ended March 31, 1952, gross revenue of the group amounted to £219,998 against £266,093, the contraction in income being due to a falling off in income from coal profits which declined from £179,596 to £131,380. London expenses were modestly higher but Johannesburg outgoings were lower and after providing for these and £20,000 (same) for depreciation and £96,588 (£88,182) for taxation profits were down to £56,007 compared with £106,487 in the preceding year. Nevertheless, the dividend distribution was maintained for the sixth successive year at 15 per cent. No allocation was made to reserves against £29,134 previously and the carry forward at the fiscal year end was slightly stronger at £173,830 against £173,190 brought in. The market value of the parent company's quoted investments together with the directors' valuation of the unquoted securities appear in the balance sheet at £662,996 against a book value of £679,300 The company's general reserve remains at £350,000 and it has also a provision for depreciation of investments of £100,000.

Company Shorts

Resolution Not Put at Siamese and Bangrin Tin Meetings.—At the extraordinary general meetings of Siamese Tin Syndicate and Bangrin Tin Dredging held on July 4 it was decided that the resolution seeking shareholders' approval for the directors' proposal concerning the further development and exploitation of the Leadhills and Wanlockhead properties in Scotland should not be put.

Mr. K. O. Hunter, chairman, said that he considered that this was the best move to make as if the resolution was not put it would enable the directors to see what could be done, whereas if the resolution was voted upon and not approved, the directors would be unable to proceed any further. The directors therefore had a free hand and would be able to put up another proposition before shareholders at a later date.

Corderoy Mines: Unwatering and Re-sampling of Wheal Ellen Completed.—The Directors of Corderoy Mines in their annual report for the year 1951, state that the unwatering and re-sampling of the Wheal Ellen Lead-Zinc mine has now been completed. This information was supplemented by the chairman, Mr. C. Lakin-Smith who said, in his statement circulated with the report and accounts, that the company was currently negotiating an agreement for letting the mine on tribute with a view to keeping it unwatered and ready for inspection at any time. He also stated that the Western Australian Government were proposing to put down a plant for treating ore from mines in the neighbourhood of Wheal Ellen which should result in the company saving a considerable capital outlay.

South African Coal Prices Raise.—South African coal producers have been granted increases up to 1s. 3d. per ton in the pit head price of coal.

Martha Gold Passes Dividend.—A preliminary announcement from Martha Gold Mining Co. (Waihi), whose properties are in New Zealand, states that no dividend will be recommended for the calendar year 1951. Profit for the year fell sharply to £1,856 against £8,917. The annual meeting will be held on July 22.

British Controlled Oilfields Incur Operating Loss.—During 1950, British Controlled Oilfields incurred a loss on operations in Venezuela of £121,039 but after bringing into account dividends and miscellaneous receipts the year's deficit was only £26,202 so that at the end of the year the debit balance on profit and loss account stood at £633,386 against £604,334 previously.

Selukwe Pays Five Per Cent.—The net profit of Selukwe Gold Mining & Finance Co. for the year ended March 31, 1952, was £7,861 against £2,105 in the preceding year. Dividend distribution, the first to be made since 1947 amounted to 5 per cent which absorbed £4,789, leaving the carry forward at £6,582 against £3,510 brought in. The annual meeting was held in London on July 9, Mr. Cromwell Hockley is chairman and managing director.

Decline in Earnings and Output of Trinidad Central.—The net profit, after all charges including taxation, of Trinidad Central Oilfields for the calendar year 1951 amounted to £69,863 against £86,778. This drop in earnings was partly due to higher field drilling and production expenses and also to the fact that crude oil production fell by 8 per cent compared with 1950. The dividend of 10 per cent and bonus distribution of 12½ per cent absorbed £34,007 and the carry forward at the year end was £73,537 against £79,314 brought in.

London Australian and General Exploration Return 3d. per Share.—The net profit of this company, after providing for all charges including taxation for the nine months August 1, 1951, to April 30, 1952—was £59,324 compared with a loss of £16,593 in the preceding year. The improved results stem from the sale of its Southern European Metal Corporation shares and the substanial cash balance thus acquired has led the directors to make a return of 3d. per share. The debit balance on profit and loss account at the end of April last was £19,806 compared with £79,130 previously.

U-Boats Make no Major Discoveries in 1951.—The United British Oilfields of Trinidad for the calendar year 1951 report a net revenue, after providing for all charges including taxation, of £1,077,038 against £1,115,574 in 1950. The dividend was maintained at 12½ per cent tax free. The most notable feature of the accounts was the reduction in the excess of current liabilities over liquid assets from £763,633 to £12,639.

In spite of continued exploration, no major discoveries were reported and the failure of the company to maintain its production over the last two years at the record level reached in 1949 stresses its need to find new crude resources.

THE BURMAH OIL COMPANY LTD

The Fiftieth Annual General Meeting of the Members of The Burmah Oil Co. Ltd. was held on Friday, July 4, 1952, in the Merchants' Hall, 30, George Square, Glasgow.

Sir Kenneth B. Harper, Chairman of the Company, presided.

The Chairman: Ladies and Gentlemen, with your permission I propose holding as read the notice convening our meeting and would call on the Secretary to read the Auditors' report.

The Secretary, having read the report of the auditors, the Chairman said: Ladies and Gentlemen, the Accounts and Directors' Report have been in your hands for three weeks, and I do not propose to refer in detail to the figures this morning but if any shareholder has any question to ask I shall be glad to answer it when, in a few minutes, I formally move that the Accounts and Report be adopted.

PROPOSED CAPITALIZATION OF RESERVES

You will have noted, I hope with approval, the Directors' intention to seek the Capital Issues Committee's consent to capitalize £6,868,257 from Reserves and issue that number of Ordinary Shares of £1 each among the present stockholders in the proportion of one for two. It has for many years been the Directors' policy to finance expansion of the Company's business and operations out of accumulated undistributed profits and from time to time to convert part of those accumulated reserves into share capital so as to bring the share capital more into line with the capital employed in the business. The present conversion is a continuation of that policy. If the Capital Issues Committee's consent is received an Extraordinary General Meeting will be called to give shareholders the opportunity, which I am sure they will be pleased to take, to pass the necessary resolutions.

I must make it clear that this increase in share capital does not imply any promise of increased distribution of profits in the future.

PROGRAMME OF CAPITAL EXPENDITURE

You will see in the Balance Sheet that excluding the investments in our wholly owned Subsidiary Companies, and what we call Trading Investments (that is our shareholdings in Burmah-Shell, Candles Ltd., and Oil Well Engineering Co. Ltd.) and excluding also our investments in Anglo-Iranian and Shell, the Company had a surplus of Current Assets over Current Liabilities at the end of the year amounting to about £19 million, including about £13½ million in the form of British Government securities. (These stocks, by the way, are all short dated so we have escaped the full severity of the fall in price of Government securities.) You will be interested to know what the Board proposes to do with the liquid portion of this surplus.

We have before us during the next five or six years a considerable programme of capital expenditure, due partly to catching up with replacements and developments which were held back by the war and partly to catering for the increasing expansion of our trading business.

The three new tankers which we are building will cost between them about £2 million. Events at Abadan, from which we have drawn the greater part of our supplies of petroleum products since we lost our Burma production, have caused us to review our future supply position and we have decided to build a refinery at Bombay in conjunction with Shell to supply a large part of our requirements for the Indian market. Our share of the cost of this refinery is estimated at some £9 million. Then to cater for the distribution of the steadily increasing trade in both India and Pakistan, Burmah-Shell have a programme of expansion of their installations, depots and other facilities and our Pakistan Trading Co. is planning to build a new installation at Chittagong. Our share of financing these two items will amount to about £6½ million.

At least one other project is under consideration and our capital programme over the next five or six years may therefore amount to £20 to £25 million; a very considerable figure, especially if we allow ourselves to look back nostalgically to costs as they were before the war. Costs of steel and other materials and of labour in our spheres in the East are both about three times what they were in 1938. It was of course obvious to all of us very soon after the war that we should have to expect increases of that order for several years at best and shareholders have shown their appreciation of that inescapable fact by agreeing uncomplainingly to the large sums we have been placing to reserve in recent years, but as a result of this policy we hope (I say it without prejudice) to be able to finance all the new expenditure I have just referred to without going to the market for more money; and I need hardly add that every one of these capital developments is designed to bring you in in due course a better return on your money than is obtainable from the securities in which it is at present invested.

EXCESS PROFITS LEVY

You will want to have an indication of what the Excess Profits Levy is likely to cost us. The answer, of course, depends on the amount of taxable profit, which I cannot forecast but on the basis of the 1951 level of profits and taking into account not only the levy but the various alterations in the incidence of Profits Tax, we estimate that the additional tax payable would have been about £200,000. I shall not comment on this regrettable political commitment, except to say that it contradicts the Government's own policy of encouraging production by private enterprise.

POSITION IN BURMA

Turning to the events of 1951, I wish I could report greater progress in restoring stability in Burma. So far as one can see, the various insurgent groups which have been campaigning, separately or together, since 1948 against the established Government made no headway last year. On the other hand the Government brought very little more of the country under their control. It would seem, in fact, that neither side is strong enough to make a marked impression on the other, and yet one cannot help feeling that in a country in the state that Burma has been in for so long, conditions do not just stand still; they either improve or they get worse and all of us who wish to see Burma at internal peace again are anxious that a marked and substantial improvement will soon become visible.

Our own relations with the Union Government are most friendly.

JOINT VENTURE

Our plans for what has become known as a Joint Venture, to restore and develop the Oil Industry in Burma through the medium of a local company of which the three British Oil Companies and the Union Government would be the shareholders, made some advance in the past year. The terms have now been agreed, subject to acceptance by the Union Government of the Oil Companies' valuation of the assets to be passed over to the new Company. The Oil Companies put this at the rupee equivalent of £15 million, in their estimation a proper and by no means excessive valuation. The Government's acceptance of this valuation is awaited.

This Joint Venture cannot immediately provide any new or increased employment. The Oil Companies are already producing and refining petroleum products at Chauk to the extent that they can be economically distributed by the available means of transport to the markets they can reach, and extension of these operations depends on the Government's success in bringing more of the country under their control.

DENIAL SUITS

The Denial Suits which we filed in 1948 drag on inactively and the present position is that application has been made to the Burma Court to decide and pronounce, as a preliminary issue, on the question whether or not the Burma Government is legally liable for compensation, without going into the details of the amount of loss and compensation involved.

INDIA AND PAKISTAN

Except in Burma, where it is still unsafe for parties to work in isolated jungle areas, we are carrying on our usual programme of prospecting for new sources of crude oil. Although the proportion of successes to failures has in the past, unfortunately, been a good deal lower in Burma, India and Pakistan than is usual in, for instance, U.S.A. or the Middle East, we must continue the search so long as there are reasonably promising areas to prospect in the countries in which we operate, as our scientists assure us there still are. Successful results would be of great benefit not only to us but also to the countries concerned. Last year we were testing, or preparing to test, six areas in India and Pakistan, but so far no strike of oil has been reported from these wells.

The important producing and refining operations of the Assam Oil Co. at Digboi continued successfully during the year. In Pakistan small production continued to be obtained at Chakwal, in the Punjab.

Our relations with the Central Governments of India and Pakistan and with the Governments of the States and Provinces in which our Subsidiary and Associated Companies operate were as cordial as ever and were reflected in the trust imposed by the Governments in the Companies at the time supplies from Abadan were cut off.

TRADING

The demand for petroleum products in India and Pakistan continued to expand, the increase over 1950 in our sales of all products being 21 per cent. While this was a substantial increase the demand in these countries is still relatively very small when one compares it with countries like the U.S.A. and United Kingdom. For example, in the year 1938 the consumption of petroleum products per head of the population was 300 gallons in the United States, 56 gallons in the United Kingdom and 1 gallon in India and Pakistan. In 1951 consumption per head had risen in the United States to 578 gallons, in the United Kingdom to 104 gallons and in India and Pakistan to 3 gallons. There is, unfortunately, no comparison to be drawn between the standards of living in the United Kingdom and the United States and the standard in these Eastern countries but the figures indicate that as standards of living advance in the East there will be scope for a steady expansion of the demand for petroleum products.

In general, trading in petroleum products was agreeably free

from restrictions both in India and in Pakistan though the restrictions on trading *between* India and Pakistan, affecting us particularly in East Pakistan, to which I referred last year, unfortunately still remain.

Prices f.o.b. Gulf of Mexico, which is the basis of oil prices the world over, showed a very slight upward tendency during the year but there was a substantial increase in freight rates resulting in higher market prices, which in our markets are already loaded with import or excise duties and in some with sales taxes also. About half the price of Motor Spirit in India and Pakistan is due to such taxes. They are a favourite source of revenue to Governments because they are so easy to collect but they are a heavy burden for the consumer to carry on what is no longer a luxury product.

ABADAN—SUPPLY PROBLEM

The supplies of petroleum products we needed for our trade in 1951 totalled over one million tons and with our Burma production so severely curtailed, only about 26 per cent of this came from our own oilfields. The balance had to be imported and until July last year came almost entirely from Abadan. When, therefore, Abadan closed down an immediate supply problem arose for our suppliers and for us and all of Abadan's former customers. To replace production at the rate of 30 million tons a year, which was the amount which was suddenly cut off, was a major and inevitably costly operation; not only the finding of the oil itself, but the re-routeing of tankers to load at ports which could supply it, and that, for the most part, meant re-routeing to ports at the other side of the world. The magnitude of this operation can be imagined from the fact that in the critical two months there would ordinarily have been about 400 tankers loading at Anglo-Iranian's two ports in Iran. That the transformation was effected without any country in the world having to ration its distribution one can only describe as a remarkable achievement on the part of the international oil industry. The problem of maintaining supplies to meet consumers' needs has engaged the attention of Committees, set up under the aegis of the Governments both in the United Kingdom and the United States, and they have rendered the greatest assistance.

LABOUR

The level of employment of labour by our Companies remained steady last year in India and Pakistan and rose by a few hundred in Burma in line with a small increase in activity there. Relations generally were good though negotiations with the Unions continued to suffer from the application of the labour policies in those countries, particularly in India. The lack of discipline inevitably resulting from the too ready reference by the Government to adjudicators of what are often excessive demands by the Unions and the amenableness of Indian adjudicators in responding to them are apt to frustrate the intention of the Trade Disputes Acts to get management and labour together. Until recently the Government of Pakistan appeared to set their face against the Indian practice of adjudication but there are now signs that they too are tending to follow it. Despite the ever-present threat of litigation the high standards of our welfare and terms of employment ensure that there is fundamental satisfaction among our men, which is greatly aided by wise and sympathetic understanding of the workers by our supervisory staffs.

It may be of interest to you to know that in the production, refining and marketing of petroleum and its products we provide direct employment for about 22,000 men and women at home and abroad. Our Shareholders number about 46,000. Those who supply the tools and the capital are therefore just about double the number of those who supply the brains and the labour. The third partner in business nowadays, the Governments, provide neither capital nor labour, but they took 58 per cent of our 1951 profits.

TANKERS

Our small fleet of tankers continued to operate satisfactorily during the year. It has always been the Board's policy to keep our ships in the best possible condition and this has undoubtedly been repaid by their long service, aided by the loyal and efficient services of our Officers and Engineers. The three new tankers now building are small ships of 8,400 tons each, suitably designed for the Eastern ports with which we trade. The first of them was launched six weeks ago and is expected to come into service in October this year. We expect delivery of the other two about the middle of next year.

STAFF

I would ask you to accord your appreciation of the continued good work of the staffs of our group of companies, both at home and in the East, ashore and afloat, under the guidance of your Managing Director, Mr. Abraham, and of Mr. Eadie, whose appointment a year ago as Assistant Managing Director was so fitting. You will have appreciated from what I have said to-day that difficulties of many different kinds arise from day to day in the conduct of the business and we are fortunate in the managements and staff we have to deal with them.

Mr. Abraham, Mr. Eadie, and Colonel Spens all visited our Eastern properties last year. I shall be asking Colonel Spens to second the adoption of the Report and Accounts and I hope he will take that opportunity to give you some impressions from his visit.

I now beg to propose that the Report of the Directors and the audited Statement of Accounts including the Balance Sheet and Profit and Loss Account to December 31, 1951, presented to this meeting be received, approved and adopted, and I call upon Colonel Spens to second this motion.

Colonel Spens, in seconding the Motion, said that having been a Director since 1936, he felt it was high time that he went to see the property of the Company.

Along with Mr. Eadie, the Assistant Managing Director, he went to Rangoon to our oilfields at Chauk in Burma, and Digboi in Assam, Golmuri where the Tinplate Co. is situated, which is associated with Tata, to Chittagong in Eastern Pakistan, to Chakwal in Pakistan near Rawalpindi, where we also have oilfields, and our prospecting area in Baluchistan. He also saw the activities of our associated distributing Company Burmah-Shell in India and Pakistan.

So far as Rangoon was concerned, he said that he was much impressed with our good relations with the Burmese Government, particularly those of Mr. Abraham, the Managing Director, and those in charge of the management on the spot.

As regards all the other activities, he was greatly struck with the loyalty of the staffs, and their *esprit de corps*. He met many Scotsmen, and he was very glad to find that so many Scotsmen were associated with what is essentially a Scottish Company. He met many of the covenanted Asian staffs, and felt that they had exactly the same feeling about the Company as the British members thereof. In his opinion, all our relations with the Governments of Burma, India and Pakistan were good, and the Company was respected and indeed admired. Finally, he stressed again the loyal and efficient service which had been got from the staffs which he was sure would always continue.

The Report and Accounts were unanimously adopted.

The Final dividend of 2s. 6d. and the bonus of 1s. 2.4d. per £1 unit on the Ordinary stock, both less Income-Tax at 9s. 6d. in the £, recommended by the Directors, were approved and declared payable on July 18, and the balance of £586,981 was carried forward.

Sir Kenneth B. Harper and Colonel Hugh B. Spens, C.B.E., D.S.O., D.L., the Directors retiring by rotation, were unanimously re-elected.

The proceedings terminated with a vote of thanks to the Chairman.

KINTA TIN MINES

MR. R. C. SAVORY'S STATEMENT

The Fifty-First Annual General Meeting of Kinta Tin Mines Ltd., was held on July 10, at the offices, 65, London Wall, E.C., **Mr. R. C. Savory,** the chairman, presiding.

The following is his statement, which was circulated with the report and accounts:—

We have pleasure in presenting the report and accounts for the year 1951 which will, I am sure, be regarded as satisfactory. The general manager's report gives the usual details of the year's working. Ore production at 381 tons shows a small decrease; the smaller yardage treated was compensated by higher values which improved to 1 lb. per cu. yd. Costs increased to 17.07 pence per cu. yd. owing to the higher cost of labour, material and also expenditure under the emergency regulations. Royalty charges were £44,829, income-tax and profits tax £140,070; £5,662 has been written off property and plant, £3,500 transfrreed to investments reserve and £25,000 placed to general reserve which now amounts to £155,000. Dividends amounting to 75 per cent have been paid which is a record in the company's history. The carry-forward is increased to £13,954.

On the balance-sheet, property and plant remain at £100,000, and the property reserve account at £18,035 which is represented by 70,000 Tanjong Tin Dredging shares. Gilt-edged investments stand at £46,316; Malayan Tin Companies shares which consists of 12,052 Tanjong Tin Dredging at £3,773 and our holding in Felspar Prospectors at £1. Cash balances in London and Malaya are £170,712, tax reserve certificates £90,275 and deposits with building societies £50,000. Rehabilitation suspense account has been slightly increased by work carried out on the Sanglop Estate to a total of £55,647. We are still without any information as to when the award on our claims may be expected.

TAXATION AND ROYALTIES

I give, as customary, the following figures, showing the final effect of taxation and royalty charges:

Taxation:	Per ton	Per cent
Royalty charges	£117.63	=16.80
Profits tax	152.19	=21.74
Income tax	215.35	=30.77
	485.17	= 69.31
Reserves, writings off, etc.	89.64	= 12.81
Dividends	125.16	= 17.88
	£699.97	= 100.00

The probable result of the excess profits levy is likely to represent an overall 10 per cent increase on taxation. Security still remains very unsatisfactory but fortunately no serious incidents occurred on our property during the year.

Prospects for the current year may, I think be regarded as fairly satisfactory, although unlikely to equal last year. Production of tin ore for the five months January-May is 114 tons. We can, I hope, continue to expect a reasonable income from our holding in Tanjong Tin Dredging but profits from the Sanglop Estate will be considerably reduced owing to the very heavy fall in the price of rubber. Steps are being taken to instal electrically driven gravel pumps at the Lallang section of the mine for the elevation of sluiced ground which will make a large amount of water, now used for elevating, available for cutting, thereby considerably increasing the yardage worked.

Once more, we owe the deepest debt of gratitude to the staff, both at home and in Malaya. Those in Malaya continue to be under constant strain and anxiety and it is with the deepest gratitude that I draw attention to their constant devotion to duty under such conditions.

CHAIRMAN'S ADDITIONAL REMARKS

The chairman, addressing the meeting, said: I am glad to be able to say that the recent damage to the Kampar Water Service has been successfully repaired and the pipe line has been in full commission since July 1.

With regard to the equipment of the Lallang Section with electric power, satisfactory agreement has been reached with the Power Supply Corporation and the matter will be expedited as far as possible.

We are informed that the award for our Rehabilitation Claim will probably be given in September.

The report and accounts were unanimously adopted and the proceedings terminated with a vote of thanks to Messrs. Osborne and Chappel, the general managers, and the staff in Malaya.

TANJONG TIN DREDGING

STEADILY IMPROVED OUTPUT

The Twenty-Sixth Annual General Meeting of Tanjong Tin Dredging Ltd., was held on July 10, at the offices, 65, London Wall, E.C., **Mr. R. C. Savory,** the chairman, presiding.

The following is his statement, circulated with the report and accounts:

It is with pleasure that your Board present the report and accounts for the year ended December 31, 1951. The improvement in output, to which I drew attention last year, steadily continued, resulting in a total tonnage for the year of 1,154 tons. The recovery per cu. yd. improved slightly to 0.59 lb., while costs further decreased to 8.69d. per cu. yd. owing to greatly increased yardage worked. The price received for tin ore was higher at £632 11s. 5d. per ton.

Our issued capital remains unchanged, and as a result of the year's working we have been able to pay dividends totalling 100 per cent, to write off £2,352, our share of expenditure on an experimental grab dredger, £3,613 off motor vehicles account, £2,800 off buildings account, £717 off property account and place a further £1,000 to investment reserve account. £100,000 has been placed to general reserve and our carry forward increased to £42,857.

I have mentioned in previous years the very high costs of equipment, and it is for this reason that your Board found it expedient to place a further large sum to reserve against future developments of the Sungei Luas area. The amount received on rehabilitation account remains at £155,560, against which we have expended on No. 1 Dredge and buildings £83,651. The total expenditure to date on No. 2 Dredge amounts to £273,519, which remains to be apportioned as between rehabilitation and additions and improvements.

Both dredges worked consistently throughout the year with utmost efficiency. The results for the current year may be regarded as satisfactory, the total output of the first five months amounting to 502 tons. The increase in costs which I foreshadowed in my statement to you of last year is now, I regret, rapidly showing effect.

SECURITY POSITION IMPROVING

The security position has been very serious but is, at last, I believe, beginning to improve as a result of the energetic action taken by General Templer. In March this year one of our dredge engineers was ambushed and shot while about to embark on the dredge, but in spite of seven or eight bullets through the body he is now making a good recovery and is at home in this country on an extended leave. It was due largely to the courageous action of our mine manager, Mr. Schuler, and also the manager of the neighbouring Riverview Rubber Estate that aid was quickly forthcoming.

With regard to the Excess Profits Levy, strenuous efforts were made to have Malaya totally excluded from the operation of this tax in view of the fact that the country was under Japanese occupation for some five years, and during which time some 75,000 tons of tin ore was extracted by the Japanese from various Malayan properties. It has been further pointed out that any tax based on so-called excess output over the years 1949-50 is grossly unfair as rehabilitation was not completed even by the end of 1950 and in some cases is still proceeding. Further the price of tin was controlled by the Government at a fictitious figure up to November, 1949, and it was not until the latter half of 1950 that normal world prices were reached in the free market. Further profits were seriously affected in 1949-50 through the influence of low output and rehabilitation. This injustice still remains in the bill in spite of the most strenuous efforts, but we can be thankful that the total impositions are now limited, so far as Malaya is concerned, to a maximum of 10 per cent, as against 18 per cent which was the originally proposed standard.

EFFECT OF PENAL TAXATION

It is evident, however, that under the existing penal taxation and the high cost of modern equipment, it is not economic to attempt to bring low-grade properties into production to-day. This is bound to affect seriously the economic position of Malaya both financially and politically, as it is in the development of such low-grade ground that the future of tin mining rests. The necessary capital for such development cannot be expected to be forthcoming without assurance of stability and equitable treatment, neither of which are evident to-day.

The following figures show clearly the allocation between taxation, tin duty and remaining profits for the past year.

Taxation:	Per ton	Per cent
Royalty charges	£116.25	=20.63
Profits tax	110.01	=19.53
Income tax	155.90	=27.67
	382.16	= 67.83
Reserves, writings off, etc.	95.74	= 16.99
Dividends	85.55	= 15.18
	£563.45	= 100.00

Our thanks are due to the staff in the East for the efficient

manner they continue to carry out their duties in the face of constant danger and strain.

The chairman, addressing the meeting, said: I have little to add to my report but am glad to be able to say that Mr. A. B. Trenberth is making a satisfactory recovery but is unlikely to be fit for further service in Malaya.

We expect the award on our claim for rehabilitation to be given this month.

The report and accounts were unanimously adopted and the proceedings terminated with a vote of thanks to Messrs. Osborne and Chappel, the general managers, and the staff in Malaya.

IDRIS HYDRAULIC TIN

A SATISFACTORY RESULT

The Thirty-Eighth Annual General Meeting of Idris Hydraulic Tin Ltd., was held on July 9 at the Registered Office, 73, Cheapside, London, E.C.2.

Mr. R. C. Savory, chairman of the company, presided.

The following is the statement of the chairman which was circulated with the annual report.

The report and accounts for the year 1951 may, I think, be regarded as satisfactory.

The general managers' report gives full details of the working and makes clear some of the difficulties which have been met with and successfully overcome. I feel I must give expression to the serious loss which we have sustained through the untimely death of Mr. G. C. Stevens, who was accidentally shot in March of this year. He had given valuable service to the company for many years and will be greatly missed and very difficult to replace.

It will be noted that the total output of 247 tons of tin ore was slightly less than last year, reflecting a decline in the value of the ground treated from 2.12 lb. per cu. yd. to 1.76 lb. per cu. yd., but the average price received for ore increased from £496 18s. per ton to £671 8s. 9d. per ton.

PROFIT AND DIVIDENDS

The profit for the year after taxation is £30,445, which added to the balance brought forward gives a total credit of £36,182. The sum of £15,000 has been transferred to general reserve, bringing this account to £40,000. Dividends totalling 1s. 3d. per share have been paid, leaving a balance of £5,282 to be carried forward.

Rehabilitation advances received remain at £49,459, against which expenditure on this account to the end of the year amounted to £51,904. We have, as yet received no notification of the award under our claim on this account.

Security has been a constant source of trouble and anxiety, but indications are that with the more active measures now being taken the situation may improve as morale has undoubtedly already done.

Prospects for the current year are favourable, the total production in the first five months of this year being 134¾ tons.

The ground in the Batu Karang section is of a treacherous nature but good progress is being made in opening out the new paddock. Output may be expected to improve when the values in depth are reached.

Taxation, increased as it will be by the effects of E.P.L., remains penal and I append hereunder a table showing the distribution of our gross profits. Whilst the percentage of taxation is 71 per cent of gross profits this will be further increased through the incidence of E.P.L.:

TABLE OF PERCENTAGE OF PROFIT	Percentage of profit
Taxation (including tin duty £28,494)	71.1
Reserve transfer	14.2
Dividends	15.1
	100.4
Less—Reduction of carry forward	0.4
	100.0

In view of the fact that Malaya was occupied for some four years and the time and expense which were incurred on rehabilitation, E.P.L. cannot be regarded as other than an unfair impost. Energetic steps were taken to bring this matter before Parliament, but although some amelioration was obtained we were far from obtaining complete exemption which was sought. I would point out that the alteration in the standard years to 1949-50 is of little value for assessment of profits as such for this company, for in the years 1949-50 profits were very adversely affected by low yardages and consequent high costs. The price of tin was also controlled by the Government until November, 1949, and did not reach its true value in a free market until the latter half of 1950.

We have to extend to our general managers and staff on the property our warmest thanks and appreciation for their work during the year, in spite of unending strain and anxiety to which they are constantly subject.

The report and accounts were adopted.

The proceedings terminated with a vote of thanks to the general manager and staff at the mine.

THE SCOTTISH AUSTRALIAN MINING CO., LTD.

The Annual General Meeting of the members of The Scottish Australian Mining Co. Ltd. was held at the offices of the Company, 197, Winchester House, Old Broad Street, London, E.C.2, on Friday, July 4.

Mr. John Norman Eggar, Chairman of the Company, who presided, said:—

Before dealing with the Company's general affairs I should like to make some personal references. Colonel Forbes, a familiar figure to you all, retired on December 31 after serving 43 years on the Board, during 23 years of which he was Chairman. He served this Company ably and faithfully. We miss him greatly and wish him many years of happiness in his retirement. He was succeeded by Mr. J. Gibson Harris as Chairman, but Mr. Harris developed an incurable illness and died early in May. He had been a director for 7 years, after 22 years as the Company's auditor. We miss him very much and express our deep sympathy to his son. Mr. David Brunskill Reid has been appointed a director in place of Colonel Forbes, and Mr. Leonard Gibson Harris has been appointed in place of his father. You will be asked to confirm these appointments.

The coal output from the four collieries working on our estate, viz., Lambton Central 1 and 2, Crofton, and Borehill, amounts to 86,299 tons or about 2,500 tons more than last year. Out of 238 working days there were strikes or disputes on 81 days at one or other of the collieries. I am afraid the labour position in the New South Wales coalfields is far from settled, though the total loss of coal by strikes and stoppages up to the present this year is less than last year's total.

I was in Australia at the time of the last Annual General Meeting. I took the opportunity of going to Newcastle, of seeing all our colliery lessees and visiting their pits. I am on the whole satisfied that these men know their jobs, that the collieries are being worked to the best advantage and that we may expect a regular and solid source of income in the shape of royalty from them for many years to come. The lessee of Borehill Colliery, who manages the mine personally, would I think do well to accept the advice of our inspector in regard to draining water away from coal workings. In the Lambton Central area work had just started in a new area, with every prospect of success, and in fact at the present time the output from that area has reached 1,000 tons per fortnight. The royalty on this and other extended areas recently granted amounts to 1s. 6d. per ton.

I spent the whole of one afternoon on the estate in company with Mr. Littler of Messrs. Creer & Berkeley, who looks after estate matters for us with the utmost regard for our interests. At the time of my visit there seemed a prospect of selling a major portion of the estate at a figure which would have left shareholders a substantial margin. However, in the succeeding months the position changed entirely. An all round recession has developed and something like an economic crisis, and I am now convinced that we must continue to dispose of the remainder of the estate gradually, as we have done hitherto. Actual sales of land during the past year have been almost negligible, due no doubt to credit restrictions. We are endeavouring to obtain the services of a contractor to make roads and lay on the usual services, when we hope to complete the development of about 35 building lots in the north of the estate. The latest news we have on the subject is that we may be able to get a contractor to start work pretty soon on one portion. It is impossible to say to what extent future development will be affected by the Local County Council's green belt and park reservation schemes, but we are watching the position closely.

The unimproved capital value of land on which we are assessed for rates and Federal Land Tax has been recently reassessed. I am afraid the increases have been heavy, but the best advice shows us there would be very little use appealing against them. The full force of them will appear in next year's accounts.

Turning to the accounts, these are set out with comparable figures for the previous year as usual. In the Profit and Loss Account the normal revenues from rents and royalties show little variation, the increase of £968 being due to a special item of interest received from the New South Wales Housing Commission, which has accrued since 1947 until our long negotiations as to compensation reached finality in 1951. Income from investments is slightly up, smaller income from Commonwealth Loans being more than made up by interest received from other securities. Administration expenses are slightly higher, due in Australia to heavier expenditure on the Lambton Freehold Estate and to some increase in wages, and in London to bigger loss on exchange owing to larger remittances from Australia to finance capital distribution. There is an increase of £367 on rates, and Australian Income Tax is increased by £456, but against that we get greater relief to the extent of £263 in United Kingdom tax.

Our credit balance of £1,115 is satisfactory, and with tax adjustment and the amount brought forward leaves £1,442 available for distribution.

As regards the Balance Sheet, the movements on reserves statement shows you how we were enabled to make the capital distribution of 1s. 6d. per unit in July last year and the 3d. per unit which we now propose.

£10,000 of Commonwealth Loans were sold during the year, also our holding of shares in the British Tobacco Co. (Australia) Ltd. On the other hand, we increased our investments in The Steamships Trading Co. and The Broken Hill Pty, Co. It is satisfactory that the present market values of these holdings is well in excess of book value.

As regards the current year, I cannot commit myself in any way. Colliery royalties should remain steady, but I am not too confident about further sales of land.

I now beg to move:—

"That the Directors' Report and Accounts for the year ended December 31, 1951, be received and adopted, and that the recommendation of the Board for payment of a dividend of 4 per cent, less Income Tax, be approved the and dividend be declared accordingly."

Mr. David B. Reid seconded the resolution which was carried unanimously.

The retiring Directors, Mr. David Brunskill Reid and Mr. Leonard Miles Gibson Harris, F.C.A., were re-elected, and the Auditor, Mr. Thomas William Baird, was re-appointed.

DIVIDENDS

Bisichi Tin 15%
Idris Hydraulic 3d. *i* (Aug. 8)
Natal Navigation Collieries 15%
Rhodesia Copper Refineries 5%
Rhokana Corporation 5¼%
Selection Trust 3s. 3d.
Transvaal Navigation Collieries 5%
Tronoh Mines, 1s. 3d. *i* (July 8)

i interim • tax free

ANGLO AMERICAN CORPORATION OF SOUTH AFRICA LIMITED GROUP

DIVIDENDS ON STOCK AND SHARES TO BEARER

With reference to the notice of declaration of dividends published in the Press on June 20, 1952, the following information is published for the guidance of holders of stock and share warrants to bearer.

The undermentioned dividends will be paid in British currency at par on or after August 8, 1952, against surrender of the appropriate coupons at Barclays Bank (Dominion, Colonial & Overseas), Circus Place, London Wall, London, E.C.2, or at the equivalent in French currency at Banque de l'Union Parisienne, 6 and 8, Boulevard Haussmann, Paris, 9e. Listing forms may be obtained on application at the offices of either of these paying agents.

Coupons presented for payment at Barclays Bank (Dominion, Colonial & Overseas) will, unless accompanied by Inland Revenue declarations, be paid at the amounts shown in Column No. 12, which are arrived at after deduction of United Kingdom Income Tax (Column 11) at rates reduced to allow for relief in respect of Dominion Taxes. Coupons must be left four clear days for examination and may be presented any day (Saturday excepted) between the hours of 11 a.m. and 2 p.m.

NAME OF COMPANY (Each incorporated in the Union of South Africa)	Class of Capital	Dividend No.	Coupon No.	Amount of dividend declared per £1 Stock or per Share	South African non-resident Shareholders' tax deducted per £1 Stock or per Share	Amount of dividend after deduction of S.A. non-resident Shareholders' tax per £1 Stock or per Share	Rate of relief authorised in the £	GROSS Amount of dividend for United Kingdom tax purposes	Rate of deduction of United Kingdom Income Tax in the £	Amount of United Kingdom Tax deducted per £1 Stock or per Share	NET Amount of dividend per £1 Stock or per Share
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
				s. d.	Pence	s. d.	s. d.	s. d.	s. d.	Pence	s. d.
Anglo American Corporation of South Africa, Limited	6% Cum. Pfd. Stock	46	46	0 7.2	0.4374	0 6.7626	1 2.58	0 7.2	8 3.42	2.9826	0 3.78
Brakpan Mines, Limited	Shares	79	79	0 7.5	0.5625	0 6.9375	4 9	0 9.0984	4 9	2.1609	0 4.7766
Daggafontein Mines, Limited	Shares	39	39	3 0	2.7	2 9.3	4 9	3 7.67	4 9	10.37	1 10.93
The South African Land and Exploration Company, Limited	Shares	28	28	1 9	1.575	1 7.425	4 9	2 1.475	4 9	6.05	1 1.375
Springs Mines, Limited	Shares	61	61	0 3	0.225	0 2.775	4 9	0 3.639	4 9	0.864	0 1.911

For and on behalf of ANGLO AMERICAN CORPORATION OF SOUTH AFRICA, LIMITED.

11, Old Jewry, London, E.C.2. July 3, 1952. W. E. GROVES, London Secretary.

The following notes are added at the request of The Commissioners of Inland Revenue:

(i) As regards the dividends payable by Brakpan Mines Limited, Daggafontein Mines Limited, The South African Land and Exploration Company, Limited, and Springs Mines, Limited, under the provisions of Section 348 and the 17th Schedule of the Income Tax Act, 1952, relating to "unilateral relief" from double taxation, South African tax applicable to the dividend is allowable as a credit against the United Kingdom tax payable in respect of the dividend. The deduction of tax at the reduced rate of 4s. 9d. in the £ instead of at the standard rate of 9s. 6d. in the £ represents a *provisional* allowance of credit at the rate of 4s. 9d. in the £. The final rate of credit allowable to a particular shareholder depends on his personal rate of tax; it may be more or less than 4s. 9d. in the £ but must not exceed three-fourths of the personal rate. Revision of the credit involves a corresponding adjustment of the amount shown above as the GROSS amount of the dividend for United Kingdom tax purposes.

(ii) As regards the dividends payable by Anglo American Corporation of South Africa, Limited, under the provisions of Section 348 and the 17th Schedule of the Income Tax Act, 1952 relating to "unilateral relief" from double taxation, South African tax applicable to the dividend is allowable as a credit against the United Kingdom tax payable in respect of the dividend. The deduction of tax at the reduced rate of 8s. 3.42d. in the £ instead of at the standard rate of 9s. 6d. in the £ represents a *provisional* allowance of credit at the rate of 1s. 2.58d. in the £ in respect of South African Non-Resident Shareholders' Tax. The final rate of credit allowable to a particular shareholder depends on his personal rate of tax; it may be less than 1s. 2.58d. in the £ as it must not exceed three-fourths of the personal rate. Revision of the credit involves a corresponding adjustment of the amount shown above as the GROSS amount of the dividend for United Kingdom tax purposes.

Metal and Mineral Trades

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